

**BEST AVAILABLE COPY**

To: Baoquoc To  
Subject: Search results for 10/668,926

Hi, Baoquoc:

*RAN 3B31*

Attached are the search results (from commercial databases) for your case.

Color tags mark the patents/articles which appear to be most relevant to the case. Color of tag has no significance. Pls review all documents, since untagged items might also be of interest. If you wish to order the complete text of any document, pls submit requests directly to EIC2100 Reference Staff located in RAN 4B28.

Pls call if you have any questions or suggestions for additional terminology, or a different approach to searching the case. Finally, pls complete the attached Search Results Feedback Form, as the EIC/STIC is continually soliciting examiners' opinion of the search service.

Thx,  
Carol

File 348:EUROPEAN PATENTS 1978-2005/Sep W01  
 (c) 2005 European Patent Office  
 File 349:PCT FULLTEXT 1979-2005/UB=20050908,UT=20050901  
 (c) 2005 WIPO/Univentio  
 File 324:German Patents Fulltext 1967-200536  
 (c) 2005 Univentio

Set	Items	Description
S1	419137	AUDIO? ? OR VOICE? ? OR SOUND? ? OR ACOUSTIC?? ? OR MUSIC?? ? OR PHONIC? ? OR AURAL? OR AURIC? OR AUDIBLE OR SONIC?
S2	3024	S1(2N)(FINGERPRINT? OR FINGER()PRINT? OR PRINT OR PRINTS OR PRINTED OR PRINTING?)
S3	80071	S1(2w)(SIGNAL? ? OR PULSE? ? OR DATASIGNAL? OR VALUE? ? OR READING? ?)
S4	7158	AUDIOSIGNAL? OR VOICESIGNAL?
S5	49150	TUNE OR TUNES OR SONG OR SONGS
S6	464	VOICEPRINT? OR AUDIOPRINT? OR TUNEPRINT? OR SONGPRINT?
S7	585823	FREQUENC?
S8	32785	S7(10N)(MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR ARRAY? OR SCHEMA? ? OR ROW? ? OR COLUMN?)
S9	474	S2:S6(20N)S8
S10	1508142	MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR ARRAY? OR SCHEMA? ? OR ROW? ? OR COLUMN?
S11	903440	ORTHOGON? OR DIAGON? OR PERPENDIC? OR RIGHT()ANGLE? ?
S12	64246	S11(20N)S10
S13	58	S9 AND S12
S14	58	IDPAT (sorted in duplicate/non-duplicate order)
S15	54	IDPAT (primary/non-duplicate records only)
S16	36	S15 AND AC=US/PR
S17	27	S16 AND AY=(1970:2001)/PR
S18	32	S15 AND PY=1970:2001
S19	41	S17:S18
S20	1429687	MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR SCHEMA? ? OR ROW? ? OR COLUMN?
S21	26330	S7(10N)S20
S22	327	S2:S6(20N)S21
S23	22114	S1:S6(5N)(RETRIEV? OR FETCH? OR LOCAT? OR FIND? OR RECOVER? OR RECALL? OR REACCESS? OR GET? ? OR GETTING OR IR OR GRAB?)
S24	13558	S1:S6(5N)(MATCH? OR COMPARAT? OR COMPARISON? OR COMPAR??? - ?)
S25	17750	S1:S6(5N)(ACCESS??? ? OR EXTRACT? OR EXT?? ? OR QUERY? OR - QUERIE? ? OR SEARCH?)
S26	13046	S1:S6(5N)(DATAMIN? OR MIN??? ? OR REQUEST?)
S27	19	S22(20N)S23:S26
S28	17655	IC='G06F-017/30':IC='G06F-017/32'
S29	2	S22 AND S28
S30	62	S22/TI,AB,CM
S31	67	(S27 OR S29:S30) NOT S13
S32	67	IDPAT (sorted in duplicate/non-duplicate order)
S33	66	IDPAT (primary/non-duplicate records only)
S34	34	S33 AND AC=US/PR
S35	30	S34 AND AY=(1970:2001)/PR
S36	54	S33 AND PY=1970:2001
S37	55	S35:S36
S38	120	S15 OR S33
S39	70	S38 AND AC=US/PR
S40	69	S39 AND AY=(1970:2003)/PR
S41	104	S38 AND PY=1970:2003
S42	17	S40:S41 NOT (S19 OR S37)
S43	17	IDPAT (sorted in duplicate/non-duplicate order)
S44	17	IDPAT (primary/non-duplicate records only)
S45	27479	S1:S6(5N)(RECOGNI? OR ID OR IDS OR IDENTIF? OR VERIF? OR A- UTHENTICAT? OR VALID? OR CONFIRM?)
S46	4400	S1:S6(5N)IDENTIFY?

S47 28906 S45:S46  
S48 12 S22(20N)S47  
S49 186556 IC=G06F?  
S50 276 IC='A63H-005'  
S51 20 S22 AND S49:S50  
S52 31 S48 OR S51  
S53 21 S52 NOT (S13 OR S31 OR S44)  
S54 21 IDPAT (sorted in duplicate/non-duplicate order)  
S55 21 IDPAT (primary/non-duplicate records only)  
?

19/5,K/2 (Item 2 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01507406

Method and system for recognition of broadcast segments  
Verfahren und System fur die Erfassung von Rundfunkabschnitten  
Methode et systeme servant a reconnaître des segments de diffusion

PATENT ASSIGNEE:

Arbitron Inc., (3966501), 312 Marshall Avenue, Laurel, Maryland 20707,  
(US), (Applicant designated States: all)

INVENTOR:

Ellis, Michael D., Boulder, Colorado 80304, (US)  
Younglove, Fancy B., Boulder, Colorado 80304, (US)  
Clifton, David L., Boulder, Colorado 80304, (US)  
Fellinger, Michael W., 1590 Quince Avenue, Boulder, Colorado 80304, (US)  
Dunn, Stephen M., Boulder, Colorado 80304, (US)  
James, David M., Fort Collins, Colorado 80526, (US)  
Land, Richard S., Lafayette, Colorado 80026, (US)

LEGAL REPRESENTATIVE:

Cross, Rupert Edward Blount et al (42891), BOULT WADE TENNANT, Verulam  
Gardens 70 Gray's Inn Road, London WC1X 8BT, (GB)

PATENT (CC, No, Kind, Date): EP 1261155 A2 021127 (Basic)  
EP 1261155 A3 030910

APPLICATION (CC, No, Date): EP 2002076018 930430;

PRIORITY (CC, No, Date): US 876578 920430

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;  
NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 748563 (EP 93910943)

INTERNATIONAL PATENT CLASS: H04H-009/00

ABSTRACT EP 1261155 A2

Broadcast segment recognition systems (10) and methods are provided in which a signature representing a monitored broadcast segment is compared with broadcast segment signatures in a data base (412) representing known broadcast segments to determine whether a match exists. Criteria for determining the validity of such a match are provided. In one aspect, signatures representing audio broadcast signals are formed by comparing temporally displaced portions of respective frequency band values within plural frequency bands of the broadcast audio signal. Systems and methods are provided for producing signatures representing intervals of a video signal which compensate for shifts in an edge of a picture (142) represented by the video signal. In addition, signatures characterizing respective intervals of a broadcast signal exhibiting correlation are produced by generating a difference vector (150) for each respective interval and carrying out vector transformations of the different vectors (150) to reduce such correlation. Moreover, signatures characterizing intervals of a video signal are produced with corresponding mask words representing reliability of values comprising the signature. Mask words of first and second signatures thus formed representing different portions of the video signal displaced from one another are compared to establish the values of the mask word.

ABSTRACT WORD COUNT: 199

NOTE:

Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021127 A2 Published application without search report  
Change: 021204 A2 Inventor information changed: 20021016  
Search Report: 030910 A3 Separate publication of the search report  
Examination: 040310 A2 Date of request for examination: 20040106  
Examination: 050413 A2 Date of dispatch of the first examination

report: 20050223

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200248	2356
SPEC A	(English)	200248	32844
Total word count - document A			35200
Total word count - document B			0
Total word count - documents A + B			35200

...SPECIFICATION follows: in which (' ) represents the transpose of the respective vector. If the rows in the matrix A are selected as the normalized eigenvectors of the matrix  $Cx$ ) (the covariance of x), the  $Cy$ ) matrix is diagonal . As a result of such selection, the bits of the newly formed frame signature (Fig...made more even. As a result, clumping of audio signatures around certain keywords is reduced.

Table I also summarizes an advantageous selection of frequency bands for a signature generation technique based primarily upon the speech content of a television audio signal . The bands 1 through 16 each have a bandwidth of 30 Hz. It is appreciated...

19/5,K/4 (Item 4 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2005 European Patent Office. All rts. reserv.

01291685  
Method and apparatus for concurrently estimating respective directions of a plurality of sound sources and for monitoring individual sound levels of respective moving sound sources  
Verfahren und Anordnung zur gleichzeitigen Schatzung von verschiedenen Richtungen mehrerer Schallquellen und zur Bestimmung der individuellen Schallhohen von verschiedenen sich bewegenden Schallquellen  
Procede et dispositif pour estimer simultanement les directions respectives d'une pluralite de sources sonores et pour detecter les niveaux sonores individuels des sources sonores respectives en mouvement

PATENT ASSIGNEE:  
Matsushita Electric Industrial Co., Ltd., (1855508), 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:  
Mizushima, Koichiro, 4-23-2-520, Nagatsuda, Midori-ku, Yokohama 226-0027, (JP)

LEGAL REPRESENTATIVE:  
Manitz, Finsterwald & Partner GbR (100614), Postfach 31 02 20, 80102 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1108994 A2 010620 (Basic)  
EP 1108994 A3 031210

APPLICATION (CC, No, Date): EP 2000124549 001109;

PRIORITY (CC, No, Date): JP 99354182 991214

DESIGNATED STATES: DE; FR; GB; IT

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G01H-003/00; G01V-001/00

#### ABSTRACT EP 1108994 A2

A method and apparatus enabling information including respective angular directions to be obtained for one or more sound sources (101) includes a sound source direction estimation section (116) for frequency-domain and time-domain processing of output signals from a microphone array to derive successive estimated angular directions of each of the sound sources. The estimated directions can be utilized by a passage detection section (216) to detect when a sound source is currently moving past the microphone array and the direction of the sound source at the time point when such passage detection is achieved, and a motion velocity detection section (609) which is triggered by such passage detection to calculate the velocity of the passing sound source

by using successively obtained estimated directions. In addition it becomes possible to produce directivity of the microphone array, oriented along the direction of a sound source which is moving past the microphone array, enabling accurate monitoring of sound levels of respective sound sources.

ABSTRACT WORD COUNT: 161

NOTE:

Figure number on first page: 11

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010620 A2 Published application without search report  
Search Report: 031210 A3 Separate publication of the search report  
Examination: 040414 A2 Date of request for examination: 20040218  
Examination: 050525 A2 Date of dispatch of the first examination report: 20050408

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200125	3995
SPEC A	(English)	200125	10042
Total word count - document A			14037
Total word count - document B			0
Total word count - documents A + B			14037

...SPECIFICATION using the Householder method, which is known in this field of technology, to convert the matrix R to a symmetric tri-diagonal matrix, then applying the QL method (which is also well known in this field of technology...of a sound source.

As described hereinabove, for each of the aforementioned predetermined set of frequency values, a corresponding complex amplitude matrix is derived by the processing that is applied by the frequency analyzers 104 to a set of extracted audio signal portions from the respective microphones of array 102, and this matrix can be expressed as...

19/5,K/12 (Item 12 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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00610950

METHOD AND SYSTEM FOR RECOGNITION OF BROADCAST SEGMENTS

VERFAHREN UND SYSTEM UM RUNDFUNKABSCHNITTE ZU ERKENNEN

PROCEDE ET SYSTEME SERVANT A RECONNAITRE DES SEGMENTS DE DIFFUSION

PATENT ASSIGNEE:

Arbitron Inc., (3966501), 312 Marshall Avenue, Laurel, Maryland 20707,  
(US), (Proprietor designated states: all)

INVENTOR:

ELLIS, Michael, D., Boulder, CO 80304, .., (US)  
DUNN, Stephen, M., Boulder, CO 80301, .., (US)  
FELLINGER, Michael, W., Boulder, CO 80304, .., (US)  
YOUNGLOVE, Fancy, B., Boulder, CO 80304, .., (US)  
JAMES, David, M., Fort Collins, CO 80526, .., (US)  
CLIFTON, David, L., Boulder, CO 80303, .., (US)  
LAND, Richard, S., Lafayette, CO 80026, .., (US)

LEGAL REPRESENTATIVE:

Cross, Rupert Edward Blount et al (42891), BOULT WADE TENNANT, Verulam Gardens 70 Gray's Inn Road, London WC1X 8BT, (GB)

PATENT (CC, No, Kind, Date): EP 748563 A1 961218 (Basic)  
EP 748563 A1 961227  
EP 748563 B1 030129  
WO 93022875 931111

APPLICATION (CC, No, Date): EP 93910943 930430; WO 93US4082 930430

PRIORITY (CC, No, Date): US 876578 920430

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;  
NL; PT; SE

RELATED DIVISIONAL NUMBER(S) - PN (AN):

EP 1261155 (EP 2002076018)

INTERNATIONAL PATENT CLASS: H04N-007/00; H04N-007/10

CITED PATENTS (EP B): WO 88/10540 A; FR 2559002 A; US 3919479 A; US 4230990 A; US 4450531 A; US 4677466 A; US 4697209 A; US 4739398 A; US 4918730 A; US 5019899 A; US 5162905 A

CITED PATENTS (WO A): GB 2140095 A ; GB 1552285 A ; GB 1015119 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Assignee: 020515 A1 Transfer of rights to new applicant: Arbitron Inc. (3966501) 312 Marshall Avenue Laurel, Maryland 20707 US

Application: 940223 A International application (Art. 158(1))

Lapse: 050112 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, BE 20030129, CH 20030129, LI 20030129, DE 20030430, DK 20030429, ES 20030730, GR 20030129, IE 20030430, LU 20030430, MC 20030430, NL 20030129, PT 20030429, SE 20030429,

Lapse: 040714 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, BE 20030129, CH 20030129, LI 20030129, DE 20030430, DK 20030429, ES 20030730, GR 20030129, IE 20030430, NL 20030129, PT 20030429, SE 20030429,

Lapse: 040128 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, CH 20030129, LI 20030129, DE 20030430, DK 20030429, ES 20030730, GR 20030129, NL 20030129, PT 20030429, SE 20030429,

Lapse: 040107 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, CH 20030129, LI 20030129, DK 20030429, GR 20030129, NL 20030129, PT 20030429, SE 20030429,

Lapse: 031112 B1 Date of lapse of European Patent in a contracting state (Country, date): CH 20030129, LI 20030129, GR 20030129, NL 20030129, PT 20030429, SE 20030429,

Lapse: 031008 B1 Date of lapse of European Patent in a contracting state (Country, date): CH 20030129, LI 20030129, NL 20030129, SE 20030429,

Lapse: 030723 B1 Date of lapse of European Patent in a contracting state (Country, date): SE 20030429,

Change: 020515 A1 Application number of divisional application (Article 76) changed: 20020327

Grant: 030129 B1 Granted patent

Lapse: 031001 B1 Date of lapse of European Patent in a contracting state (Country, date): CH 20030129, LI 20030129, SE 20030429,

Lapse: 031022 B1 Date of lapse of European Patent in a contracting state (Country, date): CH 20030129, LI 20030129, NL 20030129, PT 20030429, SE 20030429,

Lapse: 031119 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, CH 20030129, LI 20030129, GR 20030129, NL 20030129, PT 20030429, SE 20030429,

Oppn None: 040121 B1 No opposition filed: 20031030

Lapse: 040121 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, CH 20030129, LI 20030129, DK 20030429, ES 20030730, GR 20030129, NL 20030129, PT 20030429, SE 20030429,  
 Lapse: 040303 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, BE 20030129, CH 20030129, LI 20030129, DE 20030430, DK 20030429, ES 20030730, GR 20030129, NL 20030129, PT 20030429, SE 20030429,  
 Lapse: 040922 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, BE 20030129, CH 20030129, LI 20030129, DE 20030430, DK 20030429, ES 20030730, GR 20030129, IE 20030430, LU 20030430, NL 20030129, PT 20030429, SE 20030429,  
 Lapse: 040922 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 20030129, BE 20030129, CH 20030129, LI 20030129, DE 20030430, DK 20030429, ES 20030730, GR 20030129, IE 20030430, LU 20030430, NL 20030129, PT 20030429, SE 20030429,  
 Application: 961218 A1 Published application (A1with Search Report ;A2without Search Report)  
 Examination: 961218 A1 Date of filing of request for examination: 941129  
 Search Report: 961227 A1 Drawing up of a supplementary European search report: 961104  
 Examination: 980923 A1 Date of despatch of first examination report: 980807  
 Assignee: 990901 A1 Transfer of rights to new applicant: Cerdian Corporation (2044120) 312 Marshall Avenue Laurel, Maryland 20707 US  
 Change: 990901 A1 Legal representative(s) changed 19990713  
 LANGUAGE (Publication,Procedural,Application): English; English; English  
 FULLTEXT AVAILABILITY:  

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200305	2444
CLAIMS B	(German)	200305	2236
CLAIMS B	(French)	200305	2892
SPEC B	(English)	200305	25109
Total word count - document A			0
Total word count - document B			32681
Total word count - documents A + B			32681

...SPECIFICATION follows: in which (' ) represents the transpose of the respective vector. If the rows in the matrix A are selected as the normalized eigenvectors of the matrix  $Cx$ ) (the covariance of  $x$ ), the  $Cy$ ) matrix is diagonal . As a result of such selection, the bits of the newly formed frame signature (Fig...made more even. As a result, clumping of audio signatures around certain keywords is reduced.

Table I also summarizes an advantageous selection of frequency bands for a signature generation technique based primarily upon the speech content of a television audio signal . The bands 1 through 16 each have a bandwidth of 30 Hz. It is appreciated...

19/5, K/22 (Item 4 from file: 349)  
 DIALOG(R)File 349:PCT FULLTEXT  
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00980083 \*\*Image available\*\*

**AUTOMATIC IDENTIFICATION OF SOUND RECORDINGS**  
**IDENTIFICATION AUTOMATIQUE D'ENREGISTREMENTS SONORES**

**Patent Applicant/Assignee:**

GRACENOTE INC, 1625 Digital Way, Indianapolis, IN 46278, US, US  
(Residence), US (Nationality)

**Inventor(s):**

WELLS Maxwell, 6817 44th Avenue, N.E., Seattle, WA 98115, US,  
VENKATACHALAM Vidya, 420 Bellevue Way S.E., #102, Bellevue, WA 98004, US,

CAZZANTI Luca, 11870 S.e., 4th Place, Apartment 1002, Bellevue, WA 98005, US,

CHEUNG Kwan Fai, 1354-5 Bellevue Way N.E., Federal Way, WA 98004, US,  
DHILLON Navdeep, 8011 29th Avenue, N.W., Seattle, WA 98117, US,  
SUKITTANON Somsak, 8511 Midvale Avenue, N., Seattle, WA 98103, US,

**Legal Representative:**

GOLLHOFER Richard A (agent), Staas & Halsey LLP, Suite 500, 700 Eleventh Street, N.W., Washington, DC 20001, US,

**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200309277 A2-A3 20030130 (WO 0309277)

Application: WO 2002US23101 20020722 (PCT/WO US0223101)

Priority Application: US 2001306911 20010720

**Designated States:**

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G11B-027/00

International Patent Class: G06F-017/30; G10L-015/00

Publication Language: English

Filing Language: English

**Fulltext Availability:**

Detailed Description

Claims

Fulltext Word Count: 21166

**English Abstract**

Copies of original sound recordings are identified by extracting features from the copy, creating a vector of those features, and comparing that vector against a database of vectors. Identification can be performed for copies of sound recordings that have been subjected to compression and other manipulation such that they are not exact replicas of the original. Computational efficiency permits many hundreds of queries to be serviced at the same time. The vectors may be less than 100 bytes, so that many millions of vectors can be stored on a portable device.

**French Abstract**

Procede d'identification de copies d'enregistrements sonores originaux, qui comporte les etapes consistant a : extraire des caracteristiques de la copie, produire un vecteur a l'aide de ces caracteristiques, et comparer le vecteur a une base de donnees de vecteurs. L'identification peut etre mise en oeuvre pour des copies d'enregistrements sonores qui ont subi une compression et d'autres manipulations, et ne constituent donc pas des repliques exactes de l'original. L'efficacite informatique permet de traiter simultanement des centaines de demandes. Les vecteurs peuvent etre inferieurs a 100 multiplets, ce qui permet de stocker des millions de vecteurs sur un dispositif portable.

**Legal Status (Type, Date, Text)**

Publication 20030130 A2 without international search report and to be

republished upon receipt of that report.  
Examination 20030417 Request for preliminary examination prior to end of  
19th month from priority date  
Search Rpt 20030912 Late publication of international search report  
Republication 20030912 A3 with international search report.  
Republication 20030912 A3 Before the expiration of the time limit for  
amending the claims and to be republished in the  
event of the receipt of amendments.

Fulltext Availability:

Detailed Description

Detailed Description

... Bands 1, Bands 26-32 in this case).

(7) Obtain the means of the main diagonal and 8 off- diagonals on each side of X to give the vector p1.

(8) Repeat (g) for the matrix X rotated 90 degrees counterclockwise to obtain the vector p2.

(9) Normalize p11 and p2...been subjected to, and the effects of variations in volume between the candidate and registration songs . This normalization is done as follows, given the time- frequency matrix M = [Mij, where Mij is the RMS power value of the i-th band at...

19/5,K/24 (Item 6 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT  
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00909230 \*\*Image available\*\*

PERCEPTUAL AUDIO SIGNAL COMPRESSION SYSTEM AND METHOD  
SYSTEME ET PROCEDE DE COMPRESSION DE SIGNAUX AUDIO PERCEPTIFS

Patent Applicant/Assignee:

VIALTA INC, 48461 Fremont Boulevard, Freemont, CA 94538, US, US  
(Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

PRINCEN John Peter, 48461 Fremont Boulevard, Freemont, CA 94538, US, US  
(Residence), US (Nationality), (Designated only for: US)

CHAN Ming Hong, 48461 Fremont Boulevard, Freemont, CA 94538, US, US  
(Residence), AU (Nationality), (Designated only for: US)

Legal Representative:

STEVENS David R (agent), Stevens & Westberg LLP, 99 North First Street,  
Suite 201, San Jose, CA 95113, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200243291 A2-A3 20020530 (WO 0243291)

Application: WO 2001US50146 20011029 (PCT/WO US0150146)

Priority Application: US 2000721481 20001122

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G10L-019/02

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 12401

**English Abstract**

The invention provides a perceptual audio signal compression system and method. One aspect of the invention includes transforming the signal into a plurality of biorthogonal modified discrete cosine transform (BMDCT) frequency coefficients (115) using a biorthogonal modified discrete cosine transform; quantizing the BMDCT frequency coefficients (120) to produce a set of integer numbers which represent the BMDCT frequency coefficients; and encoding the set of integer numbers (125) to lower the number of bits required to represent the BMDCT frequency coefficients.

**French Abstract**

L'invention concerne un systeme et un procede de compression de signaux audio perceptifs. Selon une variante, le procede consiste a transformer le signal en une pluralite de coefficients de frequence de transformees en cosinus discretes bidimensionnelles modifiees (BMDCT) a l'aide d'une transformee en cosinus discrete bidimensionnelle modifiee; a quantifier les coefficients de frequence BMDCT de maniere a obtenir un jeu de nombres entiers representant les coefficients de frequence BMDCT; et a coder le jeu de nombres entiers afin d'abaisser le nombre de bits necessaires a la representation des coefficients de frequence BMDCT.

**Legal Status (Type, Date, Text)**

Publication 20020530 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20020829 Late publication of international search report  
Republication 20020829 A3 With international search report.

**Fulltext Availability:**

Detailed Description  
Claims

**Detailed Description**

... the spectrum, the end result of stereo processing is a transformed channel pair and an array of angles.

After the BMDCT frequency coefficients 183 have been stereo transformed, the BMDCT frequency coefficients 185 represent the audio signal 170 in different frequency bands from low frequency to high frequency. By controlling

**Claim**

... wherein redundancy is removed from the two channels of the stereo signal by performing 2x2 orthogonal transforms, wherein the transform angle is calculated by taking the eigenvectors of the cross-correlation matrix calculated from the B@MCT outputs.

16 The method of claim 12, wherein irrelevant information...

19/5,K/25 (Item 7 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00853276 \*\*Image available\*\*

INTERFERENCE SUPPRESSION TECHNIQUES  
TECHNIQUES DE SUPPRESSION D'INTERFERENCES

**Patent Applicant/Assignee:**

THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS, 506 South Wright Street, Urbana, IL 61821, US, US (Residence), US (Nationality), (For all designated states except: US)

**Patent Applicant/Inventor:**

JONES Douglas L, 1214 W. Church Street, Champaign, IL 61821, US, US (Residence), US (Nationality), (Designated only for: US)

LOCKWOOD Michael E, Apt. 3, 604 E. Clark Street, Champaign, IL 61820, US, US (Residence), US (Nationality), (Designated only for: US)  
BILGER Robert C, 1113 Newbury Road, Champaign, IL 61820, US, US (Residence), US (Nationality), (Designated only for: US)  
FENG Albert S, 1209 Wilshire Court, Champaign, IL 61821, US, US (Residence), US (Nationality), (Designated only for: US)  
LANSING Charissa R, 2903 Valley Brook Drive, Champaign, IL 61822, US, US (Residence), US (Nationality), (Designated only for: US)  
O'BRIEN William D, 2002 O'Donnell Drive, Champaign, IL 61821, US, US (Residence), US (Nationality), (Designated only for: US)  
WHEELER Bruce C, 1203 Waverly Drive, Champaign, IL 61821, US, US (Residence), US (Nationality), (Designated only for: US)  
ELLEDGE Mark, 1110 West Stoughton #208, Urbana, IL 61801, US, US (Residence), US (Nationality), (Designated only for: US)  
LIU Chen, 4504 Waubansie Lane, Lisle, IL 60532, US, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

PAYNTER L Scott (et al) (agent), Woodard, Emhardt, Naughton, Moriarty & McNett, Bank One Center/Tower, Suite 3700, 111 Monument Circle, Indianapolis, IN 46204, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200187011 A2-A3 20011115 (WO 0187011)

Application: WO 2001US15047 20010510 (PCT/WO US0115047)

Priority Application: US 2000568430 20000510

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: H04R-003/00

International Patent Class: H04R-025/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 13293

English Abstract

System (10) is disclosed including an acoustic sensor array (20) coupled to processor (42). System (10) processes inputs from array (20) to extract a desired acoustic signal through the suppression of interfering signals. The extraction/suppression is performed by modifying the array (20) inputs in the frequency domain with weights selected to minimize variance of the resulting output signal while maintaining unity gain of signals received in the direction of the desired acoustic signal. System (10) may be utilized in hearing aids, voice input devices, surveillance devices, and other applications.

French Abstract

L'invention concerne un systeme (10) comprenant un reseau de capteurs acoustiques (20) couple a un processeur (42). Le systeme (10) traite des entrees provenant du reseau (20) de maniere a extraire un signal acoustique recherche en supprimant des signaux d'interference. On effectue l'extraction/suppression en modifiant les entrees du reseau (20) dans le domaine frequence au moyen de masse selectionnees en vue de minimiser une variance du signal de sortie obtenu, tout en conservant un gain unite des signaux recus dans le sens du signal acoustique recherche. Le systeme (10) peut etre mis en oeuvre dans des appareils auditifs, des dispositifs d'entrees vocales, des dispositifs de surveillance et

d'autres applications.

Legal Status (Type, Date, Text)

Publication 20011115 A2 without international search report and to be republished upon receipt of that report.  
Examination 20020214 Request for preliminary examination prior to end of 19th month from priority date  
Search Rpt 20030320 Late publication of international search report  
Republication 20030320 A3 With international search report.

Patent and Priority Information (Country, Number, Date):

Patent: ... 20011115

Fulltext Availability:

Detailed Description

English Abstract

...coupled to processor (42). System (10) processes inputs from array (20) to extract a desired acoustic signal through the suppression of interfering signals. The extraction/suppression is performed by modifying the array (20) inputs in the frequency domain with weights selected to minimize variance of the resulting output signal while maintaining unity...

Publication Year: 2001

Detailed Description

... det( $R(k)$ )  
where  $\det(\cdot)$  is the determinant operator. If the desired monitoring direction is perpendicular to the sensor array,  $e = 10.5 \ 0.5, T$ , the numerator of relationship (4) may then be expressed...

19/5, K/39 (Item 21 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00248584

METHOD AND SYSTEM FOR RECOGNITION OF BROADCAST SEGMENTS  
PROCEDE ET SYSTEME SERVANT A RECONNAITRE DES SEGMENTS DE DIFFUSION

Patent Applicant/Assignee:

THE ARBITRON COMPANY,

Inventor(s):

ELLIS Michael D,  
DUNN Stephen M,  
FELLINGER Michael W,  
YOUNGLOVE Fancy B,  
JAMES David M,  
CLIFTON David L,  
LAND Richard S,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9322875 A1 19931111  
Application: WO 93US4082 19930430 (PCT/WO US9304082)  
Priority Application: US 92578 19920430

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AU CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
Main International Patent Class: H04N-007/00

International Patent Class: H04N-07:10

Publication Language: English

Fulltext Availability:

Detailed Description  
Claims

Fulltext Word Count: 32888

English Abstract

Broadcast segment recognition systems (10) and methods are provided in which a signature representing a monitored broadcast segment is compared with broadcast segment signatures in a data base (412) representing known broadcast segments to determine whether a match exists. Criteria for determining the validity of such a match are provided. In one aspect, signatures representing audio broadcast signals are formed by comparing temporally displaced portions of respective frequency band values within plural frequency bands of the broadcast audio signal. Systems and methods are provided for producing signatures representing intervals of a video signal which compensate for shifts in an edge of a picture (142) represented by the video signal. In addition, signatures characterizing respective intervals of a broadcast signal exhibiting correlation are produced by generating a difference vector (150) for each respective interval and carrying out vector transformations of the different vectors (150) to reduce such correlation. Moreover, signatures characterizing intervals of a video signal are produced with corresponding mask words representing reliability of values comprising the signature. Mask words of first and second signatures thus formed representing different portions of the video signal displaced from one another are compared to establish the values of the mask word.

French Abstract

L'invention decrit des systemes (10) et des procedes de reconnaissance de segments de diffusion d'apres lesquels une signature representant un segment de diffusion controle est comparee a des signatures de segments de diffusion dans une base de donnees (412) representant des segments de diffusion connus, afin de determiner l'existence d'une correspondance. L'invention decrit les criteres servant a determiner la validite d'une telle correspondance. Dans un mode de realisation, les signatures representant des signaux de diffusion audio sont constituees au moyen de

la comparaison de parties deplacees temporellement de valeur de bande de frequence respective a l'interieur de bandes de frequence multiples du signal de diffusion audio. L'invention decrit des systemes et des procedes servant a produire des signatures representant des intervalles d'un signal video compensant des decalages dans un bord d'image (142) representee par le signal video. De plus, les signatures caracterisant des intervalles respectifs d'un signal de diffusion presentant une correlation sont produites au moyen de la generation d'un vecteur de difference (150) pour chaque intervalle respectif, ainsi que de la realisation de transformations des differents vecteurs (150), de facon a reduire ladite correlation. De plus, les signatures caracterisant des intervalles d'un signal video sont produites avec des mots-masque correspondants representant la fiabilite des valeurs composant la signature. Les mots-masque des premiere et deuxieme signatures ainsi constituees representant differentes parties du signal video deplacees l'une par rapport a l'autre sont compares, afin d'établir les valeurs du mot-masque.

Patent and Priority Information (Country, Number, Date):

Patent: ... 19931111

Fulltext Availability:

Detailed Description

Publication Year: 1993

Detailed Description

... in which (1) represents the transpose of the respective vector, if the rows in the matrix A are selected as the normalized eigenvectors of the matrix Cx (the covariance of x), the CY matrix is diagonal, As a result of such selection, the bits of the newly formed frame signature

(;Fig...BAND12+BAND14

Band14 1440 BAND13+BAND15

Band15 1920 BAND13+BAND14+BAND16

Band16 2400 BAND14+BAND15

Table I also summarizes an advantageous selection of frequency bands for a signature generation technique based primarily upon the speech content of a television audio signal, The bands 1 through 16 each have a bandwidth of 30 Hz. It is...

?

?

37/5,K/13 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00973608 \*\*Image available\*\*  
SYSTEM FOR MONITORING BROADCAST AUDIO CONTENT  
SYSTEME DE SURVEILLANCE D'UN CONTENU AUDIO DIFFUSE

Patent Applicant/Assignee:

INTERNATIONAL BUSINESS MACHINES, New Orchard Road, Armonk, NY 10504, US,  
US (Residence), US (Nationality)

Inventor(s):

PITMAN Michael C, 205 Montgomery Street, Newburgh, NY 12550, US,  
FITCH Blake G, 309 Mamaroneck Avenue #272, White Plains, NY 10605, US,  
ABRAMS Steven, 26 Parliament Road, New City, NY 10956, US,  
GERMAIN Robert S, 65 Iselin Terrace, Larchmont, NY 10538, US,

Legal Representative:

SCHECTER Manny W (et al) (agent), International Business Machines  
Corporation, TJ Watson Research Center, PO Box 218, Yorktown Heights, NY  
10598, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200303628 A1 20030109 (WO 0303628)  
Application: WO 2002US12203 20020417 (PCT/WO US0212203)  
Priority Application: US 2001896849 20010629

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: H04H-009/00

International Patent Class: G10L-017/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description  
Claims

Fulltext Word Count: 4210

English Abstract

Auduo broadcasts from servers (102, 104) to clients (112, 114) over the Internet (106) are identified by a rights monitoring client computer (RMCC, 120). Copyrighted audio such as songs are identified to enforce performance rights such as the calculation of appropriate royalties based on the number of times each song is performed.

French Abstract

Selon l'invention, des donnees audio diffusees entre des serveurs (102, 104) et des clients (112, 114) sur Internet (106) sont identifiees par un ordinateur client de surveillance des droits (RMCC, 120). Les donnees audio protegees, telles que des chansons, sont identifiees en vue d'une mise en application des droits de representation, notamment pour le calcul de royalties appropriees sur la base du nombre de fois que chaque chanson est reproduite.

Legal Status (Type, Date, Text)

Publication 20030109 A1 With international search report.

Fulltext Availability:

Detailed Description

#### Detailed Description

... of events a key sequence is composed that includes a sequence of numerical values of frequency offsets (relative to the main key generator

12

v 14

#### TABLE I

SONG	TITLE	OFFSET	VALUE	COUNT	KEY
(UNITS OF TIME SEQUENCE MATCHES)					
GROUP FOR THIS SONG AND					
INTERVAL) WITH THIS OFFSET					
VALUE					
Title 1 3 1					
Title 1 4					

37/5,K/15 (Item 3 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00816820 \*\*Image available\*\*

MUSIC SEARCH ENGINE

MOTEUR DE RECHERCHE DE MUSIQUE

Patent Applicant/Inventor:

WOO Mark, 9701 Turtledove Avenue, Fountain Valley, CA 92708, US, US  
(Residence), US (Nationality)

Legal Representative:

STETINA BRUNDA GARRED & BRUCKER (agent), 75 Enterprise, Suite 250, Aliso  
Viejo, CA 92656, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200150354 A1 20010712 (WO 0150354)

Application: WO 2001US461 20010106 (PCT/WO US0100461)

Priority Application: US 2000478696 20000106

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

JP

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

Main International Patent Class: G06F-017/30

International Patent Class: A63H-005/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 9293

#### English Abstract

A music search method for finding a desired song in a song database. The method comprises generating a difference sequence for each song in the song database by determining the relative difference between adjacent notes. Next, a note sequence is chosen for the song to be found within the song database. A difference argument is generated for the note sequence by determining the relative difference between adjacent notes. The difference argument for the note sequence and the difference sequence for each song in the song database is compared. The desired song is found if the difference argument for the note sequence corresponds to a portion of the difference sequence for the desired song, or if the net difference at the closest match position is within a set difference threshold.

#### French Abstract

Moteur de recherche de musique servant a rechercher une chanson desiree dans une base de donnees de chanson. Ce procede consiste a generer une sequence differentielle pour chaque chanson de la base de donnees par

determination de la difference relative entre des notes contigues; a comparer l'argument de difference pour la sequence de notes et la sequence de difference pour chaque chanson de la base de donnees. On trouve la chanson desiree si l'argument de difference pour la sequence de note correspond a une partie de la sequence de difference pour la chanson desiree ou si la difference nette au niveau de la position de correspondance la plus proche se trouve a l'interieur d'un seuil de difference determine.

Legal Status (Type, Date, Text)

Publication 20010712 A1 with international search report.

Examination 20011101 Request for preliminary examination prior to end of 19th month from priority date

Patent and Priority Information (Country, Number, Date):

Patent: ... 20010712

Main International Patent Class: G06F-017/30

Fulltext Availability:

Detailed Description

Publication Year: 2001

Detailed Description

... commonly occurring patterns. Referring to Figure 16, the analyze database subroutine begins by deriving a frequency matrix of the difference characters for the songs in the song database 26. The frequency matrix is a listing of how many other difference characters in the songs contained within the song database 26. From the frequency matrix, iteratively longer difference character chains can be built. The chains are built based on linking gross directional change trends in the songs contained within the song database 26. Specifically, the demographics of the music determined from the direction patterns, difference character chains, and frequency matrix can be represented into topological (i.e., graphical) patterns via simplification and trending, similar to...

37/5,K/17 (Item 5 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00790661 \*\*Image available\*\*

VOICE ENCODER, VOICE DECODER, AND VOICE ENCODING AND DECODING METHOD  
CODEUR VOCAL, DECODEUR VOCAL ET PROCEDE DE CODAGE ET DE DECODAGE DE LA PAROLE

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

YONEZAKI Tadashi, 2-2-41-512, Higashiasahina, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0033, JP, JP (Residence), JP (Nationality), (Designated only for: US)

Legal Representative:

WASHIDA Kimihito (agent), Shintoshicenter Building, 5th Floor, 24-1, Tsurumaki 1-chome, Tama-shi, Tokyo 206-0034, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200124164 A1 20010405 (WO 0124164)

Application: WO 2000JP6542 20000925 (PCT/WO JP0006542)

Priority Application: JP 99275119 19990928

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G10L-019/00

International Patent Class: G10L-101:06

Publication Language: Japanese

Filing Language: Japanese

#### English Abstract

A voice analyzer (101) in a voice encoder (100) extracts the fundamental frequency and spectral envelope information from an input voice signal. A fundamental frequency quantizer (102) quantizes the fundamental frequency. A matrix generator (103) derives a spectral envelope from the spectral envelope information, and a spectral envelope quantizer (104) quantizes the spectral envelope. A multiplexer (105) multiplexes the quantized spectrum envelope and the quantized fundamental frequency for transmission. In a voice decoder (200), a spectral envelope composer (202) restores the quantized spectral envelope from the spectral envelope information, and a voice synthesizer (203) extracts the spectral envelope based on the fundamental frequency information to synthesize the decoded voice. Thus, high-quality voice decoding can be achieved in the case of transmission at a low bit rate.

#### French Abstract

Un analyseur vocal (101) integre dans un codeur vocal (100) extrait d'un signal vocal d'entrée la fréquence fondamentale et les informations d'enveloppe spectrale. Un quantificateur (102) de fréquence fondamentale quantifie la fréquence fondamentale. Un générateur matriciel (103) dérive une enveloppe spectrale des informations d'enveloppe spectrale et un quantificateur (104) d'enveloppe spectrale quantifie l'enveloppe spectrale. Un multiplexeur (105) multiplexe l'enveloppe spectrale quantifiée et la fréquence fondamentale quantifiée pour la transmission. Dans un décodeur vocal (200), un dispositif (202) de restauration de l'enveloppe spectrale rebat l'enveloppe spectrale quantifiée à partir des informations d'enveloppe spectrale et un synthétiseur vocal (203) extrait l'enveloppe spectrale sur la base des informations de fréquence fondamentale pour synthétiser la voix décodée. On peut ainsi effectuer un décodage de la parole de haute qualité pour une transmission à faible débit binaire.

#### Legal Status (Type, Date, Text)

Publication 20010405 A1 with international search report.

#### Patent and Priority Information (Country, Number, Date):

Patent: ... 20010405

#### English Abstract

A voice analyzer (101) in a voice encoder (100) extracts the fundamental frequency and spectral envelope information from an input voice signal. A fundamental frequency quantizer (102) quantizes the fundamental frequency. A matrix generator (103) derives a spectral envelope from the spectral envelope information, and a spectral envelope

Publication Year: 2001  
? t37/5,k/27,32,34-35,40

37/5,K/27 (Item 15 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00261441  
ADAPTIVE REMATRIXING OF MATRIXED AUDIO SIGNALS  
REMARTRICAGE ADAPTATIF DE SIGNAUX AUDIO MATRICES  
Patent Applicant/Assignee:

DOLBY LABORATORIES LICENSING CORPORATION,  
Inventor(s):

DAVIS Mark Franklin,  
VERNON Stephen Decker,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9409608 A1 19940428  
Application: WO 93US9665 19931008 (PCT/WO US9309665)  
Priority Application: US 92959730 19921013

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AU CA JP KR AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
Main International Patent Class: H04S-003/02

Publication Language: English

Fulltext Availability:

Detailed Description  
Claims

Fulltext Word Count: 12967

#### English Abstract

In a system in which a low-bit rate encoder and decoder carries matrixed audio signals, an adaptive rematrix rematrixes matrixed signals from an unmodified 4:2 matrix encoder to separate and isolate quiet components from loud ones, thereby avoiding the corruption of quiet signals with the low-bit-rate coding quantization noise of loud signals. The decoder is similarly equipped with a rematrix, which tracks the encoder rematrix and restores the signals to the form required by the unmodified 2:4 matrix decoder. The encoder adaptive rematrix selects the matrix output signals or the amplitude weighed sum and difference of the matrix output signals. The choice of whether the matrix output signals or the sum and difference of the matrix output signals are selected is based on a determination of which results in fewer undesirable artifacts when the output audio signals are recovered in the decoder. The adaptive rematrix may operate on frequency component representations of signals rather than the time-domain signals themselves.

#### French Abstract

Dans un systeme ayant un codeur et un decodeur de faible taux binaire qui transmettent des signaux audio matrices, une deuxieme matrice adaptative remet en matrice des signaux matricies emis par un codeur a matrice 4:2 inchangée afin de separer et d'isoler les composants silencieux des composants bruyants et d'éviter que les signaux silencieux ne soient alterés par le bruit de quantification caractéristique du codage à faible taux binaire des signaux bruyants. Le decodeur est lui aussi équipé d'une deuxieme matrice qui suit la deuxieme matrice du codeur et qui retablit la forme des signaux requise par le decodeur à matrice 2:4 inchangée. La deuxieme matrice adaptative du codeur sélectionne les signaux de sortie de la matrice ou la somme et la différence pondérées en amplitude des signaux de sortie de la matrice. Le choix des signaux de sortie de la matrice d'une part ou de la somme et de la différence des signaux de sortie de la matrice d'autre part dépend du nombre d'artefacts indésirables produits lorsque les signaux audio de sortie sont récupérés dans le decodeur; on préfère la possibilité produisant le moins d'artefacts indésirables. La deuxieme matrice adaptative peut fonctionner sur la base de représentations de la composante de fréquence des signaux plutôt que des signaux dans le domaine temporel eux-mêmes.

Patent and Priority Information (Country, Number, Date):

Patent: ... 19940428

Fulltext Availability:

Claims

Publication Year: 1994

Claim

... encoder having a noise level which varies with signal amplitude level, the encoder receiving the audio output signals of a 4:2 audio signal matrix, the apparatus adaptively rematrixing frequency component representations of the 4:2 matrix output signals, comprising means for determining which of the signals among the matrix output-signals...

...or storage and retrieval system, the encoder receiving the output signals of a 4:2 audio signal matrix, comprising means for dividing the matrix output signals into frequency components, bit-rate reduction encoding means, said bit-rate reduction encoding means having a noise...

...signal transmission or storage and retrieval system, said matrix and encoder adapted to receive four audio input signals, comprising 4:2 matrix means receiving said four input signals for providing two matrix output signals, means for dividing the matrix output signals into frequency components, bit-rate reduction encoding means, said bit-rate reduction encoding means having a noise...with signal amplitude, the system receiving the two audio output signals of a 4:2 audio signal encoding matrix and the system applying the representations of the audio signals to a 2:4 audio signal decoding matrix, comprising adaptive rematrixing means receiving said frequency components for determining which of the signals among the encoding matrix output signals and the sum and difference of the encoding matrix output signals has the...to the encoder, the encoder receiving the two audio output signals of a 4:2 audio signal encoding matrix and the decoder applying decoded representations of the audio signals to a 2:4 audio signal decoding matrix, the encoder adaptively rematrixing frequency component representations of the 4:2 encoding matrix output signals such that in one state of the adaptive rematrixing the signals applied to...

37/5,K/32 (Item 20 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00120556

FM STEREOPHONIC RADIO BROADCASTING SYSTEM HAVING S CHANNEL COMPANDING  
SYSTEME DE TRANSMISSION RADIO STEREOGRAPHIQUE A MODULATION DE FREQUENCE A  
COMPRESSION-EXPANSION DU CANAL S

Patent Applicant/Assignee:

TORICK Emil L,  
KELLER Thomas B,

Inventor(s):

TORICK Emil L,  
KELLER Thomas B,

Patent and Priority Information (Country, Number, Date):

Patent: WO 8403807 A1 19840927  
Application: WO 84US340 19840305 (PCT/WO US8400340)  
Priority Application: US 83738 19830318

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AT AU BE BR CH DE DK FR GB JP LU NL NO SE

Main International Patent Class: H04H-005/00

Publication Language: English

**Fulltext Availability:**  
Detailed Description  
Claims  
**Fulltext Word Count:** 4715

**English Abstract**

An FM stereophonic radio broadcasting system in which stereophonically related audio frequency source signals L and R are matrixed in a matrix network (10) to obtain stereophonic sum and difference signals M and S, respectively. At the transmitter, the difference signal, S, is compressed in a compressor (16), and the S and compressed-S signals modulate two quadrature-related sub-carriers of the same frequency in modulators (14, 18) to develop two double-sideband, suppressed-carrier signals, the frequency of the sub-carriers being sufficiently high to assure a frequency gap between the lower sidebands of the modulated sub-carrier signals and the sum signal M. The M signal, the aforementioned suppressed-carrier signals, and a pilot signal having a frequency which lies within the frequency gap, are combined in an adder (12) and frequency-modulated onto a high frequency carrier for the purpose of transmitting the same to one or more remote receivers (24). The receiver includes an expander (30) for expanding the received compressed signal S, and the expanded difference signal is combined with the received M signal to reproduce the audio frequency source signals L and R. The system increases the broadcast coverage area over that of current biphonic service yet is compatible with existing monophonic and biphonic receivers.

**French Abstract**

Système de transmission radio stereophonique à modulation de fréquence dans lequel les signaux de source de fréquence audio en relation stereophonique L et R sont traités dans un réseau matriciel (10) pour obtenir des signaux de somme et de différence stereophoniques M et S respectivement. Au niveau de l'émetteur, le signal de différence S est comprimé dans un compresseur (16) et les signaux S et S comprimé modulent deux sous-porteuses en relation de quadrature de la même fréquence dans des modulateurs (14, 18) pour développer deux signaux à suppression de porteuse et double bande latérale, la fréquence des sous-porteuses étant suffisamment élevée pour assurer un écart de fréquence entre les bandes latérales inférieures des signaux à sous-porteuses modulée et le signal de somme M. Le signal M, les signaux à suppression de porteuse et un signal pilote possédant une fréquence comprise dans l'écart de fréquence, sont combinés dans un additionneur (12) et modulés en fréquence sur une porteuse à haute fréquence dans le but de transmettre cette dernière vers un ou plusieurs récepteurs éloignés (24). Le récepteur comprend un expandeur (30) permettant l'expansion du signal S comprimé reçu, et le signal expansé de différence est combiné avec le signal M reçu pour reproduire les signaux de source de fréquence audio L et R. Le système permet d'augmenter la surface de diffusion d'émission par rapport à la zone couverte par le service stereophonique actuel, tout en étant compatible avec les récepteurs monophoniques et stereophoniques existants.

**Patent and Priority Information (Country, Number, Date):**  
Patent: ... 19840927

**English Abstract**

An FM stereophonic radio broadcasting system in which stereophonically related audio frequency source signals L and R are matrixed in a matrix network (10) to obtain stereophonic sum and difference signals M and S, respectively. At the...

Publication Year: 1984

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0003536455 \*\*Image available\*\*

Method about the recording of the Probandenverhaltens respecting more differently simultaneously available programs  
Verfahren zur Erfassung des Probandenverhaltens bezuglich verschiedener gleichzeitig verfugbarer Programme

Patent Applicant/Assignee:

Gall Sieghard, Dr., 80335 Munchen, DE

Inventor(s):

Gall Sieghard, Dr., 80335 Munchen, DE

Patent and Priority Information (Country, Number, Date):

Patent: DE 4400683 C2 19990715

Application: DE 4400683 19940112

Priority Application: DE 4300711 19930113; DE 4400683 19940112 (DE 4300711; DE 4400683)

Main International Patent Class: H04H-009/00

Main European Patent Class: H04H-009/00P

Publication Language: German

Fulltext Availability:

Description (English machine translation)

Claims (English machine translation)

Description (German)

Claims (German)

Fulltext Word Count (English): 6049

Fulltext Word Count (German) : 4807

Fulltext Word Count (Both) : 10856

Abstract (English machine translation)

Previous solutions necessitate the active involvement of the probationers or the fade-in of specific signals in the current program of a broadcast. In contrast, the new procedure makes do without active help of the listeners and without program-specific signals. The individual probationer leads a listener-specific recording appliance with itself, that receives one short section of the current signals in a fixed time consequence in each case. At the same time, short sections of all interesting programs are received by means of program-specific recording appliances to it. In the recording appliances is derived from the digitized sections of marking data in each case and together with Uhrzeit/Datum were stored. The data are read into a central Auswertegerat from all recording appliances in conclusion and are reconstructed the temporal sequence of the dialed programs by comparison of the listener-specific one(s) with the synchronized program-specific data for all probationers. An important application is radio and television in the exploration of the Einschaltverhaltens in the area.

Abstract (German)

Bisherige Losungen erfordern das aktive Mitwirken der Probanden oder die Einblendung spezifischer Kennungen in das laufende Programm einer Rundfunksendung. Demgegenuber kommt das neue Verfahren ohne aktives Zutun der Horer und ohne programmspezifische Kennungen aus. Der einzelne Proband fuhr ein horerspezifisches Erfassungsgerat mit sich, das in einer festgelegten Zeitfolge jeweils einen kurzen Abschnitt der aktuellen Signale aufnimmt. Zeitgleich dazu werden mittels programmspezifischer Erfassungsgerate kurze Abschnitte aller interessierenden Programme aufgenommen. In den Erfassungsgeraten werden jeweils aus den digitalisierten Abschnitten kennzeichnende Daten abgeleitet und zusammen mit Uhrzeit/Datum gespeichert. Abschliessend werden die Daten aus allen Erfassungsgeraten in ein zentrales Auswertegerat eingelesen und durch Vergleich der horerspezifischen mit den zeitgleichen programmspezifischen Daten fur alle Probanden die zeitliche Abfolge der angewahlten Programme rekonstruiert. Eine wichtige Anwendung liegt in der Erforschung des Einschaltverhaltens im Bereich Rundfunk und Fernsehen.

Patent and Priority Information (Country, Number, Date):

Patent: ... 19990715  
Fulltext Availability:  
Claims (English machine translation)  
Publication Year: 1999

Claims (English machine translation)  
... page recording appliances. 3. Method for claim 1, marked by it, that they serve a frequency row und/oder a compressed amplitude course derived from an audio signal section as program-specific and probationer-specific significant Kennsignale from the transformation of an audio...

37/5, K/35 (Item 2 from file: 324)  
DIALOG(R)File 324: German Patents Fulltext  
(c) 2005 Univentio. All rts. reserv.

0003503936 \*\*Image available\*\*  
Procedure and device for the automatic balancing of the tone quality  
Verfahren und Vorrichtung zur automatischen Kompensierung der Klangfarbe  
Patent Applicant/Assignee:

LG Electronics Inc, Seoul/Soul, KR

Inventor(s):

Ha Yeong Ho, Daeku, KR  
Han Kyu Pill, Daeku, KR  
Lee Kwang Choon, Kumi, KR  
Jeon Sung Kyu, Kumi, KR

Patent and Priority Information (Country, Number, Date):

Patent: DE 19825779 A1 19990107  
Application: DE 19825779 19980610  
Priority Application: KR 9724020 19970611 (KR 9724020)  
Main International Patent Class: H03G-005/16  
International Patent Class: H04N-005/60; H04R-005/04  
Main European Patent Class: H03G-005/16E  
European Patent Class: H04R-005/04

Publication Language: German

Fulltext Availability:

Description (English machine translation)  
Claims (English machine translation)  
Description (German)  
Claims (German)

Fulltext Word Count (English): 5186  
Fulltext Word Count (German) : 4210  
Fulltext Word Count (Both) : 9396

Abstract (English machine translation)

English Abstract not available - this Abstract is currently being replaced with improved machine translation version

Abstract (German)

Offenbart werden ein Verfahren und eine Vorrichtung zur automatischen Kompensierung einer Klangfarbe. Das Verfahren umfasst einen ersten Schritt, um zu bestimmen, ob ein Kanal geändert oder ein Eingangsaudiosignal umgestellt wird, einen zweiten Schritt, um Frequenzmerkmale des Eingangsaudiosignals zu berechnen und um das verglichene Ergebnis mit Daten in einer Grundtabelle zu vergleichen, einen dritten Schritt, um das Eingangsaudiosignal als einen Kleinstfehlermodus während des zweiten Schrittes zu bestimmen, und einen vierten Schritt, um eine Klangfarbe gemäß des bestimmten Modus zu kompensieren. Das Verfahren und die Vorrichtung stellen automatisch eine Klangfarbe durch Bestimmen einer aktuellen Klangfarbe in sich selbst auf der Grundlage der Frequenzenergie ein, die gegenwärtig angewandt wird, wenn ein Kanal geändert wird, ein Eingangsaudiosignal umgestellt wird, oder ein Farbklangmodus modifiziert wird, wobei eine handische Betätigung durch einen Benutzer ausgeschaltet und ein optimaler Klang bereitgestellt

wird.

Patent and Priority Information (Country, Number, Date):

Patent: ... 1990107

Fulltext Availability:

Claims (English machine translation)

Publication Year: 1999

Claims (English machine translation)

... in order to compute and compromise

around the compromised result with data in a basic table frequency characteristics of the entrance audio signal; a third step, in order to determine the entrance audio signal as a smallest one-error mode during the second step; and one fourth step, in...

...the result

computed by power values and inconsistencies regarding the appropriate volumes pursuant to the frequency characteristics, for compromising with data in a basic table, for the perception of the entrance audio signal in a Kleinstfehlermodus and for the corresponding expense of tone quality provision information.

7. Device...

37/5,K/40 (Item 7 from file: 324)  
DIALOG(R)File 324:German Patents Fulltext  
(c) 2005 Univentio. All rts. reserv.

0002647371

ZUM AUFZEICHNEN OF AUDIO-FREQUENCY SIGNALS GETS  
GERAET ZUM AUFZEICHNEN VON TONFREQUENZSIGNALEN

Patent Applicant/Assignee:

CANON K K TOKIO TOKYO, JP,, JP

Inventor(s):

KASHIDA MOTOKAZU, MUSASHINO, TOKIO/TOKYO, JP,, JP  
MASUI TOSHIYUKI, YOKOHAMA, KANAGAWA, JP,, JP  
FUKATSU TSUTOMU, KAWASAKI, KANAGAWA, JP,, JP  
TAKEI MASAHIRO, JP  
TAKAHASHI KOJI, JP  
SASATANI TOMOHIKO, YOKOHAMA, KANAGAWA, JP,, JP

Patent and Priority Information (Country, Number, Date):

Patent: DE 3542307 C2 19901004

Application: DE 3542307 19851129

Priority Application: JP 856281 19850117; JP 857119 19850118; JP 857696  
19850119 (JP 628185; JP 711985; JP 769685)

Main International Patent Class: G11B-027/22

International Patent Class: G11B-005/09

Main European Patent Class: G11B-005/592A1

European Patent Class: G11B-015/087; G11B-020/00C; G11B-020/10C;  
G11B-020/12B4C; G11B-027/10A2; G11B-027/22; G11B-027/30B

Publication Language: German

Fulltext Availability:

Description (English machine translation)

Claims (English machine translation)

Description (German)

Claims (German)

Fulltext Word Count (English): 8760

Fulltext Word Count (German) : 7656

Fulltext Word Count (Both) : 16416

Patent and Priority Information (Country, Number, Date):

Patent: ... 19901004

Fulltext Availability:

Claims (English machine translation)

Publication Year: 1990

Claims (English machine translation)

... contains represented data format of PCM-Tonfrequenzda-it ten, which a subrange of V s audio frequency - signal correspond. In the data matrix after Fig. 7 represents in each case a column SVAC to synchronizing data-follow, a...  
...carriage returncharacter)-a test data sequence for zykluschen examination for error recognition as well as columns DL and D 2 data sequences, which audio frequency signal -information contain. The lines of the data matrix are as lines 6 (0) to b (3X-1) represented in each of the lines...  
? t37/5,k/42-43,54

37/5,K/42 (Item 9 from file: 324)  
DIALOG(R)File 324:German Patents Fulltext  
(c) 2005 Univentio. All rts. reserv.

0002533870

PROTECTION APPLIANCE FOR HARVESTERS  
SCHUTZVORRICHTUNG FUER ERNTEMASCHINEN

Patent Applicant/Assignee:

SPERRY CORP NEW YORK, N.Y., US,, US

Inventor(s):

BOHMAN CARL ERIC, NEW HOLLAND, PA., US,, US

MITCHELL PETER GRAHAM, CONCORD, MASS., US,, US

Patent and Priority Information (Country, Number, Date):

Patent: DE 3100045 C2 19890727

Application: DE 3100045 19810102

Priority Application: US 80109932 19800104 (US 10993280)

Main International Patent Class: A01D-075/18

Main European Patent Class: A01D-075/18

European Patent Class: A01F-012/16

Publication Language: German

Fulltext Availability:

Description (English machine translation)

Claims (English machine translation)

Description (German)

Claims (German)

Fulltext Word Count (English): 5137

Fulltext Word Count (German) : 4543

Fulltext Word Count (Both) : 9680

Patent and Priority Information (Country, Number, Date):

Patent: ... 19890727

Fulltext Availability:

Claims (English machine translation)

Publication Year: 1989

Claims (English machine translation)

... the sensor coupled, around the effect Hg. 4 is a diagram charakteri-to reduce from acoustic spurious signals to or to verse tables amplitude as function of the frequency for Ern-of the 30 avoids, those in the Messfflherbalken induced or ertematerial and stones...

37/5,K/43 (Item 10 from file: 324)  
DIALOG(R)File 324:German Patents Fulltext  
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0002522064

PROCEDURES AND APPLIANCE ZUR MISTAKE SUPPRESSION OF A  
PCM-FEHLERKORREKTURDECODIERER  
VERFAHREN UND VORRICHTUNG ZUR FEHLERUNTERDRUECKUNG IN EINEM  
PCM-FEHLERKORREKTURDECODIERER

Patent Applicant/Assignee:

SONY CORP TOKIO TOKYO, JP,, JP

Inventor(s):

ODAKA KENTARO, TOKIO/TOKYO, JP,, JP

Patent and Priority Information (Country, Number, Date):

Patent: DE 3102471 C2 19890518

Application: DE 3102471 19810126

Priority Application: JP 807197 19800124 (JP 719780)

Main International Patent Class: H03K-013/32

International Patent Class: H04N-005/94; G11B-005/06

Main European Patent Class: G11B-020/18B1

European Patent Class: G11B-027/032

Publication Language: German

Fulltext Availability:

Description (English machine translation)

Claims (English machine translation)

Description (German)

Claims (German)

Fulltext Word Count (English): 15361

Fulltext Word Count (German) : 13560

Fulltext Word Count (Both) : 28921

Patent and Priority Information (Country, Number, Date):

Patent: ... 19890518

Fulltext Availability:

Claims (English machine translation)

Publication Year: 1989

Claims (English machine translation)

... signals corrected intour-the that. Each channel becomes thus with a consequence and/or a row spruenglichen stereo- audio frequency signals zurueckwan- of PC M-words provide, those of the audio frequency info. r-yours. This...

37/5,K/54 (Item 21 from file: 324)

DIALOG(R)File 324:German Patents Fulltext

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0001535015

ELEKTRONISCHES KLANGSIGNALGENERATOR

Patent Applicant/Assignee:

RCA CORP,

Inventor(s):

STIETENROTH HORST,

Patent and Priority Information (Country, Number, Date):

Patent: DE 2939401 A1 19800403

Application: DE 2939401 19790928

Priority Application: GB 7838575 19780928 (GB 7838575)

Main International Patent Class: G10H-005/00

Main European Patent Class: G04G-013/00

European Patent Class: G10H-001/26

Publication Language: German

Fulltext Availability:

Description (English machine translation)

Claims (English machine translation)

Description (German)

Claims (German)

Fulltext Word Count (English): 593

Fulltext Word Count (German) : 538

Fulltext Word Count (Both) : 1131

Patent and Priority Information (Country, Number, Date):

Patent: ... 19800403

Fulltext Availability:

Claims (English machine translation)

Publication Year: 1980

Claims (English machine translation)

... and an arrangement (contained in 100), those on dis words in everyone  
of the accessed tables addresses and accordingly a consequence the  
frequencies given by sounds of fQ - , " \* \* ' f on far dei \* eraten  
Ein9ang of the phase comparator (45) produced.

5.) Sound signal generator according to requirement 3 or 4, by it  
characterized, daB an indicator (10 in...

?

? t44/5,k/1,4;t44/5/5

44/5,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2005 European Patent Office. All rts. reserv.

01587169  
Sound signal recognition system and method, and dialog control system and method using it  
System und Verfahren zur Tonsignalerkennung, und System und Verfahren zur Dialogsteuerung damit  
Système et méthode de reconnaissance de sons, et système et méthode de contrôle de dialogue l'utilisant, et système de reconnaissance de sons  
PATENT ASSIGNEE:

FUJITSU LIMITED, (211463), 1-1, Kamikodanaka 4-chome, Nakahara-ku,  
Kawasaki-shi, Kanagawa 211-8588, (JP), (Applicant designated States:  
all)

INVENTOR:

Washio, Nobuyuki, c/o Fujitsu Limited, 1-1, Kamidodanaka 4-chome,  
Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588, (JP)

LEGAL REPRESENTATIVE:

Korfer, Thomas, Dipl.-Phys. et al (84241), Mitscherlich & Partner,  
Patent- und Rechtsanwalte, Sonnenstrasse 33, 80331 München, (DE)

PATENT (CC, No, Kind, Date): EP 1316944 A2 030604 (Basic)

APPLICATION (CC, No, Date): EP 2002004432 020226;

PRIORITY (CC, No, Date): JP 2001362996 011128

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G10L-015/18; G10L-015/28

ABSTRACT EP 1316944 A2

A sound signal including either one or both of a voice signal section and a DTMF signal section is inputted to a sound signal matching/recognizing part 200 via a sound signal input part 100. The sound signal is divided into a sound signal section by a sound signal analyzing part 210. A matching part 240 conducts a matching process of a sound signal with reference to both a DTMF signal model and a voice signal model. A recognizing part 260 is provided with a language model 250 including a word dictionary and grammar information, and recognizes a sound signal by using the language model 250 based on the matching result of the matching part 240.

ABSTRACT WORD COUNT: 116

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030604 A2 Published application without search report

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	update	Word Count
CLAIMS A	(English)	200323	733
SPEC A	(English)	200323	9169
Total word count - document A			9902
Total word count - document B			0
Total word count - documents A + B			9902

...SPECIFICATION sound signal can be presumed to be not a DTMF signal.

As described above, the matching part 240 recognizes the sound signal in the sound signal section 51 from the two detected peak frequencies on the basis of the DTMF frequency table of Table 10 (Operation 606). Herein, the sound signal section 51 is recognized as "1", and its score value is increased to "1".

(b) Matching process with reference to the voice signal model 230

On the other hand, an example of a matching process with respect to...

44/5,K/4 (Item 4 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01231479 \*\*Image available\*\*

MUSIC RECOMMENDATION SYSTEM AND METHOD  
SYSTEME ET PROCEDE DE RECOMMANDATION MUSICALE

Patent Applicant/Assignee:

PARASOFT CORPORATION, 101 East Huntington Drive, 2nd Floor, Monrovia, CA 91016-3414, US, US (Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

HICKEN Wendell T, 5733 Parkcrest Drive, La Verne, CA 91750, US, US (Residence), US (Nationality), (Designated only for: US)

HOLM Frode, 1226 E. Montecito Street, Santa Barbara, CA 93103, US, US (Residence), NO (Nationality), (Designated only for: US)

CLUNE James Edmond III, 174 Lowell Avenue, Glendora, CA 91741, US, US (Residence), US (Nationality), (Designated only for: US)

CAMPBEL Marc Elroy, 174 W. Foothill Boulevard #506, Monrovia, CA 91016, US, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

CHANG Josephine E (agent), Christie, Parker & Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200538666 A1 20050428 (WO 0538666)

Application: WO 2004US34020 20041014 (PCT/WO US04034020)

Priority Application: US 2003510876 20031014; US 2004917865 20040813

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/00

International Patent Class: A63H-005/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 14099

English Abstract

A music recommendation system receives a user selection of desired music (600), retrieves analysis data associated with the selected music (602), and generates a playlist of songs based on the analysis data (606). The analysis data is generated based on a processing of one or more audio signals associated with the selected music. A plurality of user-selectable shuffling mechanisms are provided to allow the order of the songs to be shuffled according to the selected shuffling mechanism. The end user device may also receive recommendation of new music from different providers based on the analysis data of music for which the recommendation is to be based (612).

French Abstract

Selon l'invention, un systeme de recommandation musicale recoit une

selection musicale souhaitée par un utilisateur (600), récupère des données d'analyse associées à la musique sélectionnée (602), et crée une liste de morceaux de musique sur la base des données d'analyse (606). Les données d'analyse sont créées par traitement d'un ou de plusieurs signaux audio associés à la musique sélectionnée. Ce système présente une pluralité de mécanismes de rearrangement, pouvant être sélectionnés par l'utilisateur, permettant à ce dernier de modifier l'ordre des morceaux en fonction du mécanisme de rearrangement sélectionné. Le dispositif de l'utilisateur final peut ainsi recevoir des recommandations relatives à de nouveaux morceaux de musique, provenant de différents fournisseurs, en fonction des données d'analyse de musique, sur la base desquelles la recommandation est établie (612).

**Legal Status (Type, Date, Text)**

Publication 20050428 A1 with international search report.

Publication 20050428 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

**Fulltext Availability:**

Detailed Description

**Detailed Description**

... measurements of the audio piece by calculating, for example, a Fast Fourier Transform of the audio signal. The fingerprint engine 52 then builds matrix A based on the frequency measurements, and performs a well known matrix operation known as a Singular Value Decomposition (SVD) operation on matrix A, where  $A = USV^T$ ...

...most information about the audio piece in decreasing order of significance as measured by the diagonal entries of the S matrix .

The fingerprint engine 52 is further configured to receive a generated fingerprint and search for...

44/5/5 (Item 5 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01224360 \*\*Image available\*\*

AUDIO FINGERPRINTING SYSTEM AND METHOD

SYSTEME ET PROCEDE D'EMPREINTES DIGITALES AUDIO

**Patent Applicant/Assignee:**

PARASOFT CORPORATION, 101 East Huntington Drive, 2nd Floor, Monrovia, CA 91016-3414, US, -- (Residence), -- (Nationality), (For all designated states except: US)

**Patent Applicant/Inventor:**

HOLM Frode, 1226 E. Montecito Street, Santa Barbara, CA 93103, US, US (Residence), US (Nationality), (Designated only for: US)

HICKEN Wendell T, 5733 Parkcrest Drive, La Verne, CA 91750, US, US (Residence), US (Nationality), (Designated only for: US)

**Legal Representative:**

CHANG Josephine E (agent), Christie, Parker & Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068, US,

**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200531517 A2 20050407 (WO 0531517)

Application: WO 2004US31138 20040923 (PCT/WO US04031138)

Priority Application: US 2003668926 20030923

**Designated States:**

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO

SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7448

#### English Abstract

An audio fingerprinting system and method. A server receives an audio fingerprint of a first audio piece, searches a database for the audio fingerprint, retrieves an audio profile vector associated with the audio fingerprint, updates user preference information based on the audio profile vector, and selects a second audio piece based on the user preference information. The audio fingerprint is generated by creating a matrix based on the frequency measurements of the audio piece, and performing a singular value decomposition of the matrix. To expedite the search of the database and to increase matching accuracy, a subset of candidates in the database is identified based on the most prominent musical notes of the audio piece, and the search is limited to the identified subset. One of the attributes of the audio profile vector is a particular audio class. An identifier for the audio class is generated based on an average of audio fingerprints of the audio pieces belonging to the audio class.

#### French Abstract

La presente invention a trait a un systeme et un procede d'empreintes digitales audio. Un serveur assure la reception d'une empreinte digital audio d'un premier morceau audio, la recherche dans une base de donnees de l'empreinte digitale audio, la recuperation d'un vecteur de profil audio associe a l'empreinte digitale audio, la mise a jour d'information de preference d'utilisateur en fonction du vecteur de profil audio, et la selection d'un deuxieme morceau audio en fonction de l'information de preference d'utilisateur. L'empreinte digitale audio est generee par la creation d'une matrice basee sur les mesures de frequence du morceau audio, et la realisation d'une decomposition d'une valeur singuliere de la matrice. Pour accelerer la recherche dans la base de donnees et pour accroitre la precision de correspondance, un sous-ensemble de candidats dans la base de donnees est identifie en fonction des notes musicales les plus predominantes du morceau audio, et la recherche est limitee au sous-ensemble identifie. Un des attributs du vecteur de profil audio est une classe audio particuliere. Un identifiant pour la classe audio est genere en fonction d'une moyenne d'empreintes digitales audio des morceaux audio appartenant a la classe audio.

#### Legal Status (Type, Date, Text)

Publication 20050407 A2 without international search report and to be republished upon receipt of that report.

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)  
 (c) 2005 JPO & JAPIO  
 File 350:Derwent WPIX 1963-2005/UD,UM &UP=200558  
 (c) 2005 Thomson Derwent  
 File 348:EUROPEAN PATENTS 1978-2005/Sep w01  
 (c) 2005 European Patent Office  
 File 349:PCT FULLTEXT 1979-2005/UB=20050908,UT=20050901  
 (c) 2005 WIPO/Univentio  
 File 324:German Patents Fulltext 1967-200536  
 (c) 2005 Univentio

Set	Items	Description
S1	14492	AU=KONDO T?
S2	14	AU=NODE Y?
S3	539	AU=SHIRAKI H?
S4	27	AU=SHINMEI K?
S5	15029	S1:S4
S6	31330	FINGERPRINT? OR (FINGER OR AUDIO OR VOICE)()PRINT? OR AUDIOPRINT? OR VOICEPRINT?
S7	1223	S6(20N)(MATRIX? OR MATRICE? ? OR FREQUENC?)
S8	3	S5 AND S7
S9	141352	(AUDIO OR SOUND)(5N)SIGNAL? ? OR AUDIOSIGNAL?
S10	27558	S9(20N)(MATRIX? OR MATRICE? ? OR FREQUENC?)
S11	44	S10(20N)S6
S12	0	S5 AND S11
S13	36	S1 AND S2:S4
S14	0	S13 AND S6
S15	2	S13 AND S9
S16	3	S2 AND S3

? t16/9/1-2;t16/5/3

16/9/1 (Item 1 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014594707 \*\*Image available\*\*  
 WPI Acc No: 2002-415411/200244

XRXPX Acc No: N02-326786

Image processing device for screen has feature extracting section  
 Patent Assignee: SONY CORP (SONY ); KONDO T (KOND-I); NODE Y (NODE-I);  
 SHINMEI K (SHIN-I); SHIRAKI H (SHIR-I)  
 Inventor: KONDO T; NODE Y ; SHINMEI K; SHIRAKI H  
 Number of Countries: 003 Number of Patents: 004

#### Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200213512	A1	20020214	WO 2001JP6794	A	20010807	200244 B
KR 2002041818	A	20020603	KR 2002704468	A	20020406	200277
US 20030035594	A1	20030220	WO 2001JP6794	A	20010807	200316
			US 200289926	A	20020731	
JP 2002518736	X	20030930	WO 2001JP6794	A	20010807	200365
			JP 2002518736	A	20010807	

Priority Applications (No Type Date): JP 2000238108 A 20000807

#### Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200213512 A1 J 112 H04N-005/21

Designated States (National): JP KR US

KR 2002041818 A G06T-005/00

US 20030035594 A1 G06K-009/32

JP 2002518736 X H04N-005/21 Based on patent WO 200213512

Abstract (Basic): WO 200213512 A1

NOVELTY - Storage image creating section (191) performs weighted addition of input image and storage image to reduce noise. Block cutout

section (193) cuts out class tap and blocks from images. Feature extracting section (194) extracts dynamic range and waveform analysis result from class tap and information representing whether pixel under consideration is stationary or moving. Class code generating section (195) generates class code according to feature.

DETAILED DESCRIPTION - A table (196) selects a prediction coefficient corresponding to the class code from the stored prediction coefficient set and outputs it to an estimating section (198). A block cutout section (197) cuts out prediction taps from the input image and the storage image. The estimating section creates the pixel values y of the output image sequentially by using the prediction coefficient set and pixel information from the block cutout section.

INDEPENDENT CLAIMS are included for :

- (1) an image processing method; and
- (2) a record carrier storing an image processing program.

USE - As a processing device to improve image quality.

DESCRIPTION OF DRAWING(S) - storage image creating section (191)

block cutout section (193)

feature extracting section (194)

class code generating section (195)

table (196)

block cutout section (197)

estimating section (198)

pp; 112 DwgNo 13/48

Title Terms: IMAGE; PROCESS; DEVICE; SCREEN; FEATURE; EXTRACT; SECTION  
Derwent Class: T01; W03; W04

International Patent Class (Main): G06K-009/32; G06T-005/00; H04N-005/21

International Patent Class (Additional): G06K-009/46; G06K-009/62;

G06T-001/20; G06T-003/00; G06T-007/00; G06T-007/20; H04N-005/208;

H04N-005/262

File Segment: EPI

Manual Codes (EPI/S-X): T01-C04D; T01-J04D; T01-J10B1; T01-S03; W03-A04H;  
W03-A11; W04-P01F

16/9/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
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014436328 \*\*Image available\*\*

WPI Acc No: 2002-257031/200230

XRXPX Acc No: N02-199005

Image processing system for image processing includes recording medium  
Patent Assignee: SONY CORP (SONY ); SHIRAKI H (SHIR-I); KONDO T (KOND-I);  
NODE Y (NODE-I); SHINMEI K (SHIN-I)

Inventor: KONDO T; NODE Y ; SHINMEI K; SHIRAKI H

Number of Countries: 003 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200197510	A1	20011220	WO 2001JP5117	A	20010615	200230	B
JP 2002223374	A	20020809	JP 2000179341	A	20000615	200267	
JP 2002223420	A	20020809	JP 2000179342	A	20000615	200267	
KR 2002062274	A	20020725	KR 2002701976	A	20020215	200308	
US 20030122967	A1	20030703	WO 2001JP5117	A	20010615	200345	
			US 200249553	A	20021118		
JP 2002511103	X	20030924	WO 2001JP5117	A	20010615	200365	
			JP 2002511103	A	20010615		

Priority Applications (No Type Date): JP 2000179342 A 20000615; JP 2000179341 A 20000615; JP 2002511103 A 20010615

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200197510 A1 J 98 H04N-005/21

Designated States (National): JP KR US

JP 2002223374 A 11 H04N-005/21

JP 2002223420 A 13 H04N-007/01  
KR 2002062274 A H04N-005/21  
US 20030122967 A1 H04N-005/217  
JP 2002511103 X H04N-005/21 Based on patent wo 200197510

**Abstract (Basic):** wo 200197510 A1

NOVELTY - An image processing system for receiving an input image signal to generate an output image signal of a higher quality than that of the input image signal, comprising first and second signal processing means. The first signal processing means performs a processing of storage type and includes storage means for storing an image signal of a quality identical to that of the output image signal. The first signal processing means adds the input image signal and the image, as stored in the storage means, to generate a first image signal of a higher quality than that of the input signal and to store the first image signal in the storage means. The second signal processing means performs classifying and adapting operations, and generates a second image signal of a quality higher than that of the input image by extracting based on the input image signal in accordance with a pixel position in the output image signal, by classifying the target pixel into one of a plurality of classes according to the features, and by operating the input image signal by an operation system preset in conforming with the classified class. The image processing system further comprises output selecting means for making a decision on the basis of the first image signal and the second image signal to select one of these first and second image signals as the output image signal.

USE - Image processing system for image processing includes recording medium

pp; 98 DwgNo 2/30

Title Terms: IMAGE; PROCESS; SYSTEM; IMAGE; PROCESS; RECORD; MEDIUM

Derwent Class: T01; W02; W04

International Patent Class (Main): H04N-005/21; H04N-005/217; H04N-007/01

International Patent Class (Additional): G06T-003/40; G06T-005/00;  
G06T-007/20; H04N-005/213; H04N-007/24

File Segment: EPI

Manual Codes (EPI/S-X): T01-J10B; W02-J03A2; W04-M01D6

16/5/3 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00879243 \*\*Image available\*\*

IMAGE PROCESSING DEVICE AND METHOD, AND RECORDED MEDIUM

PROCEDE ET DISPOSITIF DE TRAITEMENT D'IMAGE ET SUPPORT ENREGISTRE

Patent Applicant/Assignee:

SONY CORPORATION, 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo  
141-0001, JP, JP (Residence), JP (Nationality), (For all designated  
states except: US)

Patent Applicant/Inventor:

KONDO Tetsujiro, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, JP, JP (Residence), JP (Nationality),  
(Designated only for: US)

NODE Yasunobu , c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, JP, JP (Residence), JP (Nationality),  
(Designated only for: US)

SHIRAKI Hisakazu , c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, JP, JP (Residence), JP (Nationality),  
(Designated only for: US)

SHINMEI Katsuhisa, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, JP, JP (Residence), JP (Nationality),  
(Designated only for: US)

Legal Representative:

KOIKE Akira (et al) (agent), No.11 Mori Bldg., 6-4, Toranomon 2-chome,  
Minato-ku, Tokyo 105-0001, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200213512 A1 20020214 (WO 0213512)  
Application: WO 2001JP6794 20010807 (PCT/WO JP0106794)  
Priority Application: JP 2000238108 20000807  
Designated States:  
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)  
JP KR US  
Main International Patent Class: H04N-005/21  
International Patent Class: H04N-005/208; G06T-005/00  
Publication Language: Japanese  
Filing Language: Japanese

#### English Abstract

A storage image creating section (191) performs weighted addition of an input image and a storage image so as to reduce the noise at still portions. A block cutout section (193) cuts out a class tap from the input image and blocks from the input image and the storage image. A feature extracting section (194) extracts the dynamic range and waveform analysis result from the class tap and information representing whether the pixel under consideration is stationary or moving from the blocks. A class code generating section (195) generates a class code according to the feature. A table (196) selects a prediction coefficient corresponding to the class code from the stored prediction coefficient set and outputs it to an estimating section (198). A block cutout section (197) cuts out prediction taps from the input image and the storage image. The estimating section (198) creates the pixel values  $y$  of the output image sequentially by using the prediction coefficient set and pixel information from the block cutout section (197).

#### French Abstract

La presente invention concerne un generateur d'image en memoire (191) effectuant l'addition ponderee d'une image d'entree sur une image en memoire de facon a reduire le bruit au niveau des parties fixes. Un extracteur de bloc (193) extrait un repere de classe dans l'image d'entree et des blocs tires de l'image d'entree et de l'image en memoire. Un extracteur de caracteristiques (194) extrait la plage dynamique et le resultat d'analyse du signal a partir du repere de classe et de l'information permettant de savoir si le pixel considere correspond a du fixe ou du mobile dans les blocs. Un generateur de code de classe (195) produit un code de classe correspondant a la caracteristique. Une table (196) selectionne un coefficient de prediction correspondant au code de classe a partir de l'ensemble de coefficients de prediction en memoire, puis le redonne en sortie a un module de calcul (198). Un extracteur de bloc (197) extrait un repere de prediction dans l'image d'entree et l'image en memoire. Le module de calcul (198) cree les valeurs de pixel " $y$ " de l'image de sortie de facon sequentielle par utilisation de l'ensemble de coefficients de prediction et de l'information pixel provenant de l'extracteur de bloc (197).

Legal Status (Type, Date, Text)  
Publication 20020214 A1 with international search report.

17/5/1 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01645704

SIGNAL PROCESSOR

SIGNALPROZESSOR

PROCESSEUR DE SIGNAUX

PATENT ASSIGNEE:

Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku,  
Tokyo 141-0001, (JP), (Applicant designated States: all)

INVENTOR:

KONDO, Tetsujiro , c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

YOSHIKAWA, Kazushi, c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

KOKUBO, Tetsushi, c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

SHIRAKI, Hisakazu , c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

OBANA, Michimasa, c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

KASAMA, Hideo, c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

KANEMARU, Masanori, c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

LEGAL REPRESENTATIVE:

Pilch, Adam John Michael (50481), D Young & Co 120 Holborn, London EC1N  
2DY, (GB)

PATENT (CC, No, Kind, Date): EP 1477929 A1 041117 (Basic)

WO 2003071479 030828

APPLICATION (CC, No, Date): EP 2002701571 020221; WO 2002JP1543 020221

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06N-001/00; G06T-001/00; G06T-011/80

CITED REFERENCES (EP A):

See references of WO 03071479A1;

#### ABSTRACT EP 1477929 A1

The present invention relates to a signal processing device which learns operations made by a user without the user knowing, and which can perform processing optimal to the user based on the learning results. At a learning unit 22, operating signals supplied according to user operations are monitored, and judgment is made whether or not these can be used for learning. In the event that the operating signals are learning operating signals which can be used for learning, the learning unit 22 learns a correction norm which is the norm for correcting input signals, based on the learning operating signals. On the other hand, at a correcting unit 21, post-correction signals, wherein the input signals are corrected based on the correction norm obtained by learning, are output as output signals. The present invention can be applied to an NR (Noise Reduction) circuit which removes noise.

ABSTRACT WORD COUNT: 146

NOTE:

Figure number on first page: 0002

#### LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 031022 A1 International application. (Art. 158(1))

Application: 031022 A1 International application entering European phase

Application: 041117 A1 Published application with search report

Examination: 041117 A1 Date of request for examination: 20031022

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200447	2561
SPEC A	(English)	200447	62602
Total word count - document A			65163
Total word count - document B			0
Total word count - documents A + B			65163

17/5/2 (Item 2 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01475104

SIGNAL PROCESSING DEVICE  
SIGNALVERARBEITUNGSEINRICHTUNG  
DISPOSITIF DE TRAITEMENT DE SIGNAUX

PATENT ASSIGNEE:

Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku,  
Tokyo 141-0001, (JP), (Applicant designated States: all)

INVENTOR:

KONDO, Tetsujiro, c/o SONY CORPORATION , 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)  
YOSHIKAWA, Kazushi, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)  
KOKUBO, Tetsushi, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)  
SHIRAKI, Hisakazu, c/o SONY CORPORATION , 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)  
OBANA, Michimasa, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)  
KASAMA, Hideo, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)  
KANEMARU, Masanori, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo 141-0001, (JP)

LEGAL REPRESENTATIVE:

Pratt, Richard Wilson (46458), D. Young & Co, 21 New Fetter Lane, London  
EC4A 1DA, (GB)

PATENT (CC, No, Kind, Date): EP 1363235 A1 031119 (Basic)  
WO 2002067193 020829

APPLICATION (CC, No, Date): EP 2002700666 020221; WO 2002JP1542 020221  
PRIORITY (CC, No, Date): JP 200145249 010221

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06N-001/00; G06T-001/00; G06T-011/80

ABSTRACT EP 1363235 A1

The present invention relates to a signal processing device which learns operations made by a user without the user knowing, and which can perform processing optimal to the user based on the learning results. At a learning unit 22, operating signals supplied according to user operations are monitored, and judgment is made whether or not these can be used for learning. In the event that the operating signals are learning operating signals which can be used for learning, the learning unit 22 learns a correction norm which is the norm for correcting input signals, based on the learning operating signals. On the other hand, at a correcting unit 21, post-correction signals, wherein the input signals are corrected based on the correction norm obtained by learning, are output as output signals. The present invention can be applied to an NR (Noise Reduction) circuit which removes noise.

ABSTRACT WORD COUNT: 146

NOTE:

Figure number on first page: 2

**LEGAL STATUS (Type, Pub Date, Kind, Text):**

Application: 021023 A1 International application. (Art. 158(1))  
Application: 021023 A1 International application entering European  
phase

Application: 031119 A1 Published application with search report  
Examination: 031119 A1 Date of request for examination: 20021015

**LANGUAGE (Publication,Procedural,Application): English; English; Japanese**

**FULLTEXT AVAILABILITY:**

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200347	1528
SPEC A	(English)	200347	61408
Total word count - document A			62936
Total word count - document B			0
Total word count - documents A + B			62936

? t8/9/all

8/9/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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017147106 \*\*Image available\*\*  
WPI Acc No: 2005-471451/200548  
XRAM Acc No: C05-143958  
XRXPX Acc No: N05-383188

Tile-like element for large scale integration circuit, includes intensity providing layer with insulation and mechanical strength property  
Patent Assignee: SEIKO EPSON CORP (SHIH )  
Inventor: KONDO T  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applcat No Kind Date Week  
JP 2005159314 A 20050616 JP 2004301893 A 20041015 200548 B

Priority Applications (No Type Date): JP 2003368966 A 20031029

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
JP 2005159314 A 30 H01L-031/10

Abstract (Basic): JP 2005159314 A

NOVELTY - An element (1a) has a strength providing layer (11) consisting of resin with insulation and mechanical strength property. The electrodes (12a,12b) are provided on the surface of the layer (11). A semiconductor layer (13) is formed on the electrodes.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) tile-like element manufacturing method;
- (2) device manufacturing method; and
- (3) electronic device.

USE - For metal semiconductor metal (MSM) type photodiode, semiconductor laser, vertical cavity surface emitting laser (VCSEL), distributed feedback (DFB) laser, phototransistor, large scale integration (LSI) chip such as metal oxide semiconductor (MOS) integrated circuit (IC), complementary MOS (CMOS) IC, silicon-on-sapphire (SOS) IC used in light interconnection circuit, optical fiber communication module, laser printer, laser beam projector, laser beam scanner, linear encoder, rotary encoder, displacement sensor, pressure sensor, gas sensor, blood flow sensor, fingerprint sensor, high speed electricity modulation circuit, radio frequency (RF) circuit, mobile phone, wireless local area network (WLAN), wrist watch type electronic device (claimed), clock, word processor, notebook personal computer (PC).

ADVANTAGE - Tile-like element with high reliability is provided by low cost.

DESCRIPTION OF DRAWING(S) - The figure shows the top elevation and sectional view of the tile-like element.

- tile-like element (1a)
- strength providing layer(12a,12b) electrodes (11)
- semiconductor layer (13)

pp; 30 DwgNo 1/20

Title Terms: TILE; ELEMENT; SCALE; INTEGRATE; CIRCUIT; INTENSITY; LAYER; INSULATE; MECHANICAL; STRENGTH; PROPERTIES

Derwent Class: L03; U11; U13

International Patent Class (Main): H01L-031/10

International Patent Class (Additional): H01L-027/14; H01S-005/183

File Segment: CPI; EPI

Manual Codes (CPI/A-N): L03-G02; L04-E01; L04-E02A; L04-E03; L04-E03A; L04-E03B; L04-F03; L04-F04

Manual Codes (EPI/S-X): U11-C08A6; U13-C06; U13-D02A; U13-D04A

8/9/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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017124105 \*\*Image available\*\*

WPI Acc No: 2005-448448/200546

XRPX Acc No: N05-364758

Micro tile-shaped element for use in thin-film device, has surface electrode electrically connected to terminal electrode of last substrate that has multiple spike-shaped protrusions

Patent Assignee: SEIKO EPSON CORP (SHIH )

Inventor: KONDO T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2005150298	A	20050609	JP 2003383822	A	20031113	200546 B

Priority Applications (No Type Date): JP 2003383822 A 20031113

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2005150298	A	16		H01L-021/60	

Abstract (Basic): JP 2005150298 A

NOVELTY - The micro tile-shaped element (161) has surface electrode (162) electrically connected to a terminal electrode (172) of the last substrate (171) that has multiple spike-shaped protrusions (172a). The protrusions of the terminal electrode are pressurized and press-stuck

by the surface electrode.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) connection structure of micro tile-shaped element;
- (2) connection method micro tile-shaped element;
- (3) thin film device; and
- (4) electronic device.

USE - In connection structure (claimed) used in thin-film device (claimed) such as surface-emitting type semiconductor laser, semiconductor laser and light emitting diode, used in electronic device (claimed) such as mobile telephone, wrist watch type electronic device, portable information process, e.g. word processor and personal computer, optical fiber communication module, light interconnection circuit, laser printer, laser beam projector, laser beam scanner, linear encode, rotary encoder, displacement sensor, pressure sensor, gas sensor, blood flow sensor, fingerprint sensor, high-speed electricity modulation circuit, wireless radio frequency (RF) circuit and wireless local area network (LAN).

ADVANTAGE - Enables electrically connecting the micro tile-shaped element with the last substrate, easily with small pressing power, without damaging the element.

DESCRIPTION OF DRAWING(S) - The figure shows a model sectional view of the thin-film device. (Drawing includes non-English language text).

- micro tile-shaped element (161)
- surface electrode (162)
- last substrate (171)
- terminal electrode (172)
- protrusion (172a)

pp; 16 DwgNo 1/18

Title Terms: MICRO; TILE; SHAPE; ELEMENT; THIN; FILM; DEVICE; SURFACE; ELECTRODE; ELECTRIC; CONNECT; TERMINAL; ELECTRODE; LAST; SUBSTRATE; MULTIPLE; SPIKE; SHAPE; PROTRUDE

Derwent Class: U11; U12; V08

International Patent Class (Main): H01L-021/60

International Patent Class (Additional): H01S-005/022; H01S-005/183

File Segment: EPI  
Manual Codes (EPI/S-X): U11-D03A3; U12-A01A; U12-A01B; U12-E02; V08-A01B;  
V08-A04A

8/9/3 (Item 3 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.

017124036 \*\*Image available\*\*  
WPI Acc No: 2005-448379/200546  
XRPX Acc No: N05-364689

Tile-like surface emitting laser in electronic device e.g. mobile telephone, has light receiving element provided at tile-shaped n-type semiconductor element

Patent Assignee: SEIKO EPSON CORP (SHIH )

Inventor: KONDO T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2005150144	A	20050609	JP 2003381053	A	20031111	200546 B

Priority Applications (No Type Date): JP 2003381053 A 20031111

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2005150144	A	29		H01S-005/026	

Abstract (Basic): JP 2005150144 A

NOVELTY - The surface emitting laser has a light receiving element provided at the tile-shaped n-type semiconductor element (11).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) manufacturing method of tile-like surface emitting laser; and  
(2) electronic device.

USE - For electronic device (claimed) such as light interconnection circuit, optical fiber communication module, laser printer, laser beam projector, laser beam scanner, linear encoder, rotary encoder, displacement sensor, pressure sensor, gas sensor, blood flow sensor, finger print sensor, high speed electrically modulation circuit, wireless radio frequency (RF) circuit, mobile telephone, watch, portable information processor e.g. word processor and personal computer, and wireless local area network (LAN).

ADVANTAGE - Enables to reduce size of the laser and to manufacture tile-like surface emitting laser, easily.

DESCRIPTION OF DRAWING(S) - The figure shows a sectional view of the tile-like surface emitting laser. (Drawing includes non-English language text).

tile-like surface emitting laser (1a)  
n-type semiconductor element (11)  
p-type semiconductor layer (12)  
n-type semiconductor layer (13)  
anode (21)  
cathode (22)  
electrode for monitor (23)  
pp; 29 DwgNo 1/23

Title Terms: TILE; SURFACE; EMIT; LASER; ELECTRONIC; DEVICE; MOBILE; TELEPHONE; LIGHT; RECEIVE; ELEMENT; TILE; SHAPE; N; TYPE; SEMICONDUCTOR; ELEMENT

Derwent Class: U12; V08

International Patent Class (Main): H01S-005/026

International Patent Class (Additional): H01L-031/12; H01S-005/183

File Segment: EPI

Manual Codes (EPI/S-X): U12-A01B1B; U12-A01B2; V08-A04A

?

File 9:business & Industry(R) Jul/1994-2005/Sep 13  
     (c) 2005 The Gale Group  
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     (c) 1999 The Gale Group  
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 File 649:Gale Group Newswire ASAP(TM) 2005/Sep 01  
     (c) 2005 The Gale Group

Set	Items	Description
S1	4764600	AUDIO? ? OR VOICE? ? OR SOUND? ? OR ACOUSTIC?? ? OR MUSIC?? ? OR PHONIC? ? OR AURAL? OR AURIC? OR AUDIBLE OR SONIC?
S2	15013	S1(2N)(FINGERPRINT? OR FINGER()PRINT? OR PRINT OR PRINTS OR PRINTED OR PRINTING?)
S3	41727	S1(2W)(SIGNAL? ? OR PULSE? ? OR DATASIGNAL? OR VALUE? ? OR READING? ?)
S4	302	AUDIOSIGNAL? OR VOICESIGNAL?
S5	575464	TUNE OR TUNES OR SONG OR SONGS
S6	1770	VOICEPRINT? OR AUDIOPRINT? OR TUNEPRINT? OR SONGPRINT?
S7	626033	FREQUENC?
S8	3495263	MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR SCHEMA? ? OR ROW? ? OR COLUMN?
S9	72076	ORTHOGON? OR DIAGON? OR PERPENDIC? OR RIGHT()ANGLE? ?
S10	174518	S1:S6(5N)(RETRIEV? OR FETCH? OR LOCAT? OR FIND? OR RECOVER? OR RECALL? OR REACCESS? OR GET? ? OR GETTING OR IR OR GRAB?)
S11	31414	S1:S6(5N)(MATCH? OR COMPARAT? OR COMPARISON? OR COMPAR??? - ?)
S12	212593	S1:S6(5N)(ACCESS??? ? OR EXTRACT? OR EXT?? ? OR QUERY? OR - QUERIE? ? OR SEARCH?)
S13	58428	S1:S6(5N)(DATAMIN? OR MIN??? ? OR REQUEST?)
S14	9525	S7(10N)S8
S15	44	S2:S6(S)S14
S16	0	S15(S)S9
S17	128325	S1:S6(5N)(RECOGNI? OR ID OR IDS OR IDENTIF? OR VERIF? OR AUTHENTICAT? OR VALID? OR CONFIRM?)
S18	31	RD S15 (unique items)
S19	2	S18/2004:2005
S20	29	S18 NOT S19
	?	

File 696:DIALOG Telecom. Newsletters 1995-2005/Sep 13  
     (c) 2005 Dialog  
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 File 484:Periodical Abs PlusText 1986-2005/Sep w2  
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 File 647:CMP Computer Fulltext 1988-2005/Aug w4  
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 File 674:Computer News Fulltext 1989-2005/Sep w2  
     (c) 2005 IDG Communications

Set	Items	Description
S1	5405362	AUDIO? ? OR VOICE? ? OR SOUND? ? OR ACOUSTIC?? ? OR MUSIC?? ? OR PHONIC? ? OR AURAL? OR AURIC? OR AUDIBLE OR SONIC?
S2	10815	S1(2N)(FINGERPRINT? OR FINGER()PRINT? OR PRINT OR PRINTS OR PRINTED OR PRINTING?)
S3	28582	S1(2w)(SIGNAL? ? OR PULSE? ? OR DATASIGNAL? OR VALUE? ? OR READING? ?)
S4	156	AUDIOSIGNAL? OR VOICESIGNAL?
S5	960068	TUNE OR TUNES OR SONG OR SONGS
S6	1112	VOICEPRINT? OR AUDIOPRINT? OR TUNEPRINT? OR SONGPRINT?
S7	479379	FREQUENCY?
S8	3306812	MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR SCHEMA? ? OR ROW? ? OR COLUMN?
S9	67898	ORTHOGON? OR DIAGON? OR PERPENDIC? OR RIGHT()ANGLE? ?
S10	204304	S1:S6(5N)(RETRIEV? OR FETCH? OR LOCAT? OR FIND? OR RECOVER? OR RECALL? OR REACCESS? OR GET? ? OR GETTING OR IR OR GRAB?)
S11	35562	S1:S6(5N)(MATCH? OR COMPARAT? OR COMPARISON? OR COMPAR??? - ?)
S12	146429	S1:S6(5N)(ACCESS??? ? OR EXTRACT? OR EXT?? ? OR QUERY? OR - QUERIE? ? OR SEARCH?)
S13	73386	S1:S6(5N)(DATAMIN? OR MIN??? ? OR REQUEST?)
S14	9837	S7(10N)S8
S15	42	S2:S6(S)S14
S16	0	S15(S)S9
S17	4	S15/2004:2005
S18	42	S15 NOT S16
S19	40	RD (unique items)

19/3,K/5 (Item 1 from file: 98)  
DIALOG(R)File 98:General Sci Abs/Full-Text  
(c) 2005 The HW Wilson Co. All rts. reserv.

04046547 H.W. WILSON RECORD NUMBER: BGSA99046547 (USE FORMAT 7 FOR FULLTEXT)  
**Convergent evolution of courtship songs among cryptic species of the Carnea group of green lacewings (Neuroptera: Chrysopidae: Chrysoperla).**  
Henry, Charles S  
Wells, Marta Luc a Mart nez; Simon, Chris M  
Evolution (Evolution) v. 53 no4 (Aug. 1999) p. 1165-79  
SPECIAL FEATURES: bibl 11 ISSN: 0014-3820  
LANGUAGE: English  
COUNTRY OF PUBLICATION: United States  
WORD COUNT: 12264

(USE FORMAT 7 FOR FULLTEXT)

TEXT:  
... 1h.

#### BEHAVIORAL TESTS

To test the responsiveness of North American *C. adamsi* individuals to recorded songs of Asian *C. "adamsi-K,"* each insect was presented with its own song type and the alternative song type in a paired design (Wells and Henry 1992b). For each of the two populations...

...species of the carnea group (Henry et al. 1996 and references therein), sexual differences in song phenotype were slight or absent, so both males and females were used to make the stimulus tapes. Temporal and frequency characteristics of those songs are given in Table 4.

Three females and two males of *C. adamsi* (North America), which were field collected...on combined data from the COII and ND2 genes. Seven characters were coded and mapped (Table 8): number of volley types per song, direction of frequency change in a volley, direction of frequency change during an SRU, presence of a discrete "calling song" in males, pattern of volley production in the SRU during dueting, length of interval between...test) or the Kishino-Hasegawa test ( $P < 0.0001$ ).

#### SONG CHARACTER EVOLUTION

Four song features (Table 8), describing frequency modulation and temporal attributes of volleys (B, F, G) and frequency changes in SRUs (C ...

...downesi-like forms from North America and Asia, and presence of a special male calling song (D), found only in *C. lucasina* and *C.c.4* "motorboat" of Eurasia. The remaining...

...evolution in *Chrysoperla*, permitting a test of the hypothesis of symplesiomorphy of the *C. "adamsi"* song type. Duetting lacewings exhibit three very distinct patterns of volley production (Fig. 3; Wells and...).

19/3,K/12 (Item 2 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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06862032 SUPPLIER NUMBER: 878231911 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**CULTURAL DIVERGENCE WITHIN NOVEL SONG IN THE BLACK-CAPPED CHICKADEE (POECILE ATRICAPILLUS)**  
Gammon, David E; Baker, Myron C; Tipton, John R  
Auk (IAUK), v122 n3, p853-871, p.19  
Jul 2005  
ISSN: 0004-8038 JOURNAL CODE: IAUK

DOCUMENT TYPE: Feature  
LANGUAGE: English  
WORD COUNT: 8775

RECORD TYPE: Fulltext; Abstract

TEXT:

... we described novel acoustic divergence in the Black-capped Chickadee's (*Poecile atricapillus*) fee-bee song. Individual Black-capped Chickadees across most of the species' North American range normally possess a single song type that does not vary geographically over several thousand kilometers (Kroodsma et al. 1999). In Fort Collins, Colorado, however, most individuals possess three acoustically distinct song types that are distinguishable from the continental song type by novel introductory syllables, stereotyped relationships between the frequencies of the fee and bee syllables of each song type, and an amplitude break in the fee syllable of one of the song types (Fig. 1; Gammon and Baker 2004). One of those song types, chick-a-fee-bee, possesses introductory notes that appear similar to the introductory notes...

...superficial and does not reflect a common evolutionary origin (D. E. Gammon unpubl. data). Another song type, fee-bee-3, appears similar to the continental fee-bee song type, but differs in that it uses a much-reduced range of fee and bee...

...bee-3: 2.97-3.28 kHz, D. E. Gammon unpubl. data; range of bee frequencies in continental song type: 2.74-3.70 kHz, table 2 in Kroodsma et al. 1999). Here, we examine acoustic divergence between songs of continuously distributed populations along a riparian corridor that includes Fort Collins and songs found in discontinuous, low-abundance habitat. We then compare variation in adult song with variation in the songs of individual juveniles around the time of natal dispersal.

METHODS

Description of study sites for...

...maximizing similarity of the average fee and bee frequencies for each cluster to the corresponding frequencies of the three Fort Collins song types; see table 2 in Gammon and Baker 2004). Because of our classification method, we would still classify two songs uttered by a particular male at a study site far from Fort Collins, such as...

...that differed only in frequency (i.e. pitch) by a few hundred hertz, into different song-type groupings.

In a previous study (Gammon and Baker 2004), we classified the principal acoustic...

...many acoustic dimensions were found moving both upstream and downstream from Fort Collins (Fig. 8; Table 1). Frequency ratios between each song-type grouping were clearly different in Fort Collins (within Fort Collins: FFB average frequency ratio...

...whereas in moving away from Fort Collins, both upstream and downstream, frequency ratios for all song-type groupings began to converge upon ~1.15 (Fig. 8). Introductory notes for CFB were...

...phased out eventually (Table 1). At the extreme upstream and downstream study sites, nearly all songs were similar to the continental song type, in that they lacked introductory notes and amplitude breaks in the fee syllable and possessed frequency ratios similar to those reported for the continental song type (~1.15; Weisman et al. 1990, Kroodsma et al. 1999). Islands North songs were similar to Fort Collins songs in that they usually possessed introductory notes and used comparable frequency ratios (Fig. 8), but...

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06786343 SUPPLIER NUMBER: 843154481 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
SONG STRUCTURE AND MICROGEOGRAPHIC SONG VARIATION IN WEDGE-TAILED

SABREWINGS (*CAMPYLOPTERUS CURVIPENNIS*) IN VERACRUZ, MEXICO

Gonzalez, Clementina; Ornelas, Juan Francisco

Auk (IAUK), v122 n2, p593-607, p.15

Apr 2005

ISSN: 0004-8038 JOURNAL CODE: IAUK

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 5386

TEXT:

... perched; but welldefined territories (as in the ORDU song group) were not detected at Macuiltepetl.

Song structure.- Wedge-tailed Sabrewing songs are long (8-10 s), loud, and high-pitched (>7 kHz), composed of >45 well...

...notes in every singing group, and total number of notes was also variable. The full song covered a wide range of frequencies (7.8 | 0.2). Songs were very versatile (see Table 1), and syllables were rarely repeated more than once in succession. Songs began with an introductory syllable, which differed among groups (Fig. 5). On average, songs proceeded as a series of 45-52 syllables. Some syllables appeared only once in a...

...3 (10.2% of the variance) represented a pitch element explained by maximum and minimum frequencies (Table 2). Although factor scores differed significantly among groups for PC 3 (Kruskal-Wallis ANOVA; PC...

19/3,K/15 (Item 5 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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06182306 SUPPLIER NUMBER: 391908751 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Geographic variation in song of the bright-rumped Attila (Tyrannidae:

Attila spadiceus): Implications for species status

Leger, Daniel W; Mountjoy, D James

Auk (IAUK), v120 n1, p69

Jan 2003

ISSN: 0004-8038 JOURNAL CODE: IAUK

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 2814

TEXT:

... Panama were very similar to songs that we recorded in Costa Rica (Figure 1).

Dawn songs from Central America differed significantly from those in South America (Figure 2). The Central American dawn song main phrases were significantly longer but had only marginally more syllables per song, probably because Central American birds included more three-noted syllables. Central American main phrases were significantly higher on both frequency measures (Table 1).

In addition to the quantitative variables, dawn song note structure was clearly different. In...

19/3,K/16 (Item 6 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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05888834 SUPPLIER NUMBER: 283399491 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Complex vocalizations and aerial displays of the Amethyst-throated**

**Hummingbird (*Lampornis amethystinus*)**

Ornelas, Juan Francisco; Gonzalez, Clementina; Uribe, Jorge

Auk (IAUK), v119 n4, p1141-1149, p.9

Oct 2002

ISSN: 0004-8038 JOURNAL CODE: IAUK

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 3637

**TEXT:**

... buzzy elements (Fig. 1D). The duration of the introductory phrase was <1 s and the frequency was higher than the rest of the song (Table 1). Compared with other Amethyst-throated Hummingbird vocalizations, the song had the lowest minimum frequency and the highest bandwidth (Table 1).

The song of Green-throated Mountain-gem is composed by several syllable types arranged...

...pure tones (Ficken et al. 2000; Fig. 2B). In contrast, fewer syllable types and no frequency modulations (Table 2, Fig. 2C) constitute the song of *E. fulgens*.

TABLE 2.

Discussion.-Sexual selection plays an important role in the evolution

...

19/3,K/17 (Item 7 from file: 484)

DIALOG(R)File 484:Periodical Abs Plustext

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05857169 SUPPLIER NUMBER: 242773691 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Geographic song variation and its consequences in the Golden Bowerbird**

Westcott, David A; Kroon, Frederieke J

Condor (ICDR), v104 n4, p750-760, p.11

Nov 2002

ISSN: 0010-5422 JOURNAL CODE: ICDR

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 6518

**TEXT:**

... of notes" did not contribute to the discrimination and was dropped from the model. The song traits important in the discrimination were bandwidth, number of peaks, dominant frequency , fundamental frequency , internote interval, and pureness (Table 2).

The degree of discrimination achieved in the initial DFA was extremely high, 97% overall...

19/3,K/20 (Item 10 from file: 484)

DIALOG(R)File 484:Periodical Abs Plustext

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05578923 SUPPLIER NUMBER: 121982423 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Rediscovery of a cryptic species and description of a new subspecies in the Myrmeciza hemimelaena complex (Thamnophilidae) of the neotropics**

Isler, Morton L; Alonso, Jose Alvarez; Isler, Phyllis R; Valqui, Thomas; Et al

Auk (IAUK), v119 n2, p362-378, p.17

Apr 2002

ISSN: 0004-8038 JOURNAL CODE: IAUK

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 9418

TEXT:

... character differed diagnostically between populations. Loudsongs of *centunculorum* were higher in pitch as exemplified by frequencies of second notes (Table 1). Other vocal characters may be found to be diagnostic with larger samples. Loudsongs of...

...initial section (Table 1), but accelerated more rapidly in the final two-thirds of the song (Table 1), than those of *c. castanea*. Although ranges of the latter three measures did...

19/3,K/21 (Item 11 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
(c) 2005 ProQuest. All rts. reserv.

05120139 SUPPLIER NUMBER: 74818862 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**Geographic variation in the song of the willow Flycatchers:**  
**Differentiation between Empidonax traillii adastus and E. t. extimus**  
Sedgwick, James A  
Auk (IAUK), v118 n2, p366-379, p.14  
Apr 2001  
ISSN: 0004-8038 JOURNAL CODE: IAUK  
DOCUMENT TYPE: Feature  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 6709

TEXT:

... Spectrogram (RTS) version 1.23, and SIGNAL version 3.0 programs and hardware (Beeman 1996). Songs were stored as digitized waveforms in computer files using RTS (sample rate = 25 kHz). Twenty measures of duration and 14 measures of frequency were taken from each song (Tables 2 and 3, Fig. 2). Acoustic features of duration comprised measures of song, phrase, note, frequency modulation (FM), and internote lengths determined in RTS. Parameters of frequency included measures of song, phrase, and note frequencies at maximum amplitude or at -20 db below maximum amplitude; those...adastus populations than to southerly extimus populations for every parameter where Bonferroni differences were expressed (Table 2).

Nine measures of frequency differed ( $P < 0.05$ ) and demonstrated Bonferroni differences across groups (Table 3). Again, Bonferroni differences were expressed as combinations of southerly populations of *E. t. extimus*...

...nine variables, the frequency at maximum amplitude was less for one or more southerly, extimus song groups than for various subsets of the other 11 groups. For example, low frequency (Silo) of the total song ( $F = 5.18$ ,  $df = 15$  and 138,  $P = 0.0001$ ) was lower for groups El...

...high-elevation Arizona population (U7) had a vocal identity more similar to that of northern song groups than to the southerly extimus populations.

Multivariate analysis.-Differences among song group means were...

19/3,K/22 (Item 12 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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04862655 SUPPLIER NUMBER: 57935881 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**Dose beak size affect acoustic frequencies in Woodcreepers?**  
Palacios, Maria G; Tubaro, Pablo L  
Condor (ICDR), v102 n3, p553-560, p.8  
Aug 2000  
ISSN: 0010-5422 JOURNAL CODE: ICDR

DOCUMENT TYPE: Feature  
LANGUAGE: English  
WORD COUNT: 3482

RECORD TYPE: Fulltext; Abstract

TEXT:

... controlling for the effect of body size and phylogeny.

METHODS

The present analyses of woodcreeper song were based on recordings published by Hardy et al. (1995) representing songs of 46 out of 50 species. Sonograms for the song of each recorded species were made with a Proaudio Spectrum 16 Sound Blaster (Media Vision...).

...variables: maximum and minimum frequencies (MAX and MIN, respectively), bandwidth (BAND = MAX - MIN), and emphasized frequency (frequency with the highest amplitude in the song, ENF, see Table 1). All measurements were made by an assistant who knew neither the beak length nor...

...tests, but still considered in the estimation of the relationship between body mass and acoustic frequencies of the song. Common names of species are given in Table 1.

We based our phylogenetic analysis on the cladistic hypothesis of Raikow (1994). This hypothesis...to the length of the orotracheal cavity compared to a short beak, reducing its resonating frequency.

TABLE 2.

TABLE 3.

It is interesting to note that, if species were not constrained in their angle...

19/3,K/23 (Item 13 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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04862652 SUPPLIER NUMBER: 57935854 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Use of two song categories by Golden-cheeked Warblers  
Bolsinger, Jeffrey S  
Condor (ICDR), v102 n3, p539-552, p.14  
Aug 2000  
ISSN: 0010-5422 JOURNAL CODE: ICDR  
DOCUMENT TYPE: Feature  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 8515

TEXT:

... e.g., A to B) or during aggressive interactions with neighbors. The A and B songs of Golden-cheeked Warblers differed in their relative degree of complexity, duration, and frequency of modal intensity. Every study area male sang just one A-song type, but most males sang two or more distinct B songs, of which only one was commonly used (the male's preferred B song; unpubl. data). Every male from which I recorded both A and B songs ( $n = 16$ ) sang a preferred B song that was longer and included more song elements than his A song, and only one male sang a preferred B song with a higher frequency of modal intensity than his A song (Table 1). B songs were not always longer or lower in frequency than A songs, however; the rarely used B songs of several males were shorter (six males) or had a higher frequency of modal intensity (three males) than the A song of the same male.

Males sang A songs at lower rates (songs min sup -1...)

19/3,K/24 (Item 14 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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04666412 SUPPLIER NUMBER: 48415806 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Song type for intrasexual interaction in the Bush Warbler**

Anonymous

Auk (IAUK), v117 n1, p228-232, p.5

Jan 2000

ISSN: 0004-8038 JOURNAL CODE: IAUK

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 2477

**TEXT:**

... Yoon et al. (1995) analyzed singing rate, syllable composition, and physical characteristics of the two song types from three local populations of Bush Warblers. They found that the number of notes in the whistle portion was the most distinctive feature to define the song types. The alpha song has only one or two notes in the whistle portion and seems to have one long, continuous introductory note (Fig. 1). In contrast, the beta song has more than two notes in the whistle portion (Fig. 1), which sounds like a stuttered whistle. Compared with beta songs, alpha songs have fewer notes and a higher dominant frequency in the whistle portion, a higher maximum frequency in the syllable portion, and are of longer overall duration (Table 1). Alpha songs also have more syllables in the syllable portion than do beta songs, and the duration of the syllable portion is longer (Table 1, Fig. 1).

During spontaneous...

19/3,K/25 (Item 15 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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04655555 SUPPLIER NUMBER: 49351830 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Rhyme in Gace Brûle's Lyric: Formal and Semantic Interplay**

Pensom, Roger

Medium Aevum (PMAE), v68 n2, p340-342, p.3

1999

ISSN: 0025-8385 JOURNAL CODE: PMAE

DOCUMENT TYPE: Book Review-Favorable

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1091

**TEXT:**

...penser, trover, amie, talant, etc.). Chapter 2, which contains illuminating and suggestive inferences from the frequency tables (pp. 5-6), explores the associative value of rhyme whose function is the creation...

...expresses the poet's intention is in turn contradicted by the relatively high proportion of songs based on coblas doblas (a sequence of two stanzas on the same rhyme-sounds) i...

19/3,K/26 (Item 16 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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04649032 SUPPLIER NUMBER: 47606359 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**The type B song of the Northern Parula: Structure and geographic variation along proposed sub-species boundaries**

Bay, Michael D

Wilson Bulletin (PWBU), v111 n4, p505-514, p.10

Dec 1999

ISSN: 0043-5643 JOURNAL CODE: PWBU

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 3282

TEXT:

... within the east to west type A song overlap zone.  
In addition to phrase variation, songs varied significantly between geographic areas in mean duration, mean maximum frequency, and in the mean number of simple and trill syllables (Table 1). Songs of western birds averaged 0.10 second longer than songs of southeastern birds and 0.20 second longer than songs of northeastern birds ( $F = 10.90$ ,  $df = 2, 134$ ,  $P < 0.001$ ). Birds from the...

19/3,K/27 (Item 17 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
(c) 2005 ProQuest. All rts. reserv.

04466070 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Is the song of Black Redstart males an honest signal of status?  
Cucco, Marco; Malacarne, Giorgio  
Condor (ICDR), v101 n3, p689-694, p.6  
Aug 1999  
ISSN: 0010-5422 JOURNAL CODE: ICDR  
DOCUMENT TYPE: Feature  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 4001

TEXT:

... success of classification.  
PLAYBACK EXPERIMENT

From a 1993 sample of vocalizations of Black Redstarts, one song of an adult and one of a subadult were selected to be utilized in playback experiments. The selected songs had the lowest background noise. Because we did not utilize more than one exemplar of...

...time and frequency values belonged to the two male categories by comparing the expression: (selected song value - mean category value)/SD, to the tabular  $t$  sub  $x$  value (Sokal and Rohlf 1995). The mean category values for subadults and adults are reported in Table 1. None of the frequencies and times differed from the mean values ( $P > 0.10$ ). The two songs were transferred to a Kenwood DX7 digital tape recorder (DAT) and, in the field...

...place in the 1995 breeding season. Tested birds were unlikely to be familiar with the songs presented because the two recordings were made two years before the experiment and most tested...

19/3,K/28 (Item 18 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
(c) 2005 ProQuest. All rts. reserv.

04318228 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Geographic variation in black-capped Chickadee songs and singing behavior  
Kroodsma, Donald K; Byers, Bruce E; Halkin, Sylvia L; Hill, Christopher; et al  
Auk (IAUK), v116 n2, p387-402, p.16  
Apr 1999  
ISSN: 0004-8038 JOURNAL CODE: IAUK  
DOCUMENT TYPE: Feature  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 8499

TEXT:

... distal island in the Elizabethan Island chain near Martha's Vineyard), 75 of 82 chickadee songs we analyzed were this typical

two-tone hey-sweetie (Table 1). All 75 songs were of the 1-2 song formula, with a F<sub>1</sub> / F<sub>2</sub>" frequency ratio of 1.10 to 1.30 (see Fig. 1, Table 2), indicating a substantial drop in frequency from the first to the second whistle. The cluster analysis placed these 75 songs into three different clusters (1, 2, and 3) that differed in frequency, with a cluster of low, medium, and high-frequency songs (Table 2). Frequency ranges of these three clusters were broadly overlapping, however, and with no obvious trimodal distribution...

...continuous range of frequencies, each individual for which we had lengthy recordings had a representative song in each cluster. We also emphasize that these three clusters do not identify three "song types" for the birds; for each individual chickadee, for example, the cluster analysis has simply...

...a group of monotone hey-sweetie songs (1-2 song formula) from Chappaquiddick that had frequency ratios of <=1.06 (cluster 4; Tables 1 and 2). Five songs (two from Alberta, one from Montana, one from Massachusetts, one from New York) all sounded...

...but closer analysis showed a consistent extra amplitude break in the first whistle (2-2 song formula; sweetie-sweetie), so these songs were classified with clusters 11 through 15. The seventh song, from Falmouth, Massachusetts, contained some non-whistled "click" components; although it, too, sounded superficially like...

...made it unique (Table 1: column 21). Our hunch is that most of these seven songs represent unique individuals from populations of typical hey-sweetie singers (see Smith 1991), although it is possible that some undetected, unique song populations of this chickadee occur across North America.

Songs of Oregon and Washington birds clearly...both a high-frequency sweetie-hey (cluster 7) and a low-frequency song, the low-frequency song was always a sweetie-hey (cluster 6).

(Table Omitted)

Captioned as: TABLE 2.

Another monotonous song form, with two amplitude breaks in the...

...of this distinctive song, but our analysis allotted three clusters for these songs, with nonoverlapping frequency distributions (Table 2, Fig. 3). The two lower frequency versions of these songs (clusters 8 and especially 9) were relatively rare, but examples of the highest-frequency version...

...of each male over three clusters (1, 2, and 3), apparently based largely on the frequency of the song (Table 2).

Only one male in our "mainland" samples clearly sang two different song types (MA...even by standards of island chickadees, consisting of four monotonous whistles with a brief high-frequency click preceding the first, third, and fourth whistles (Table 1).

Oregon males also showed song dialects and repertoires of at least two different song...  
? t19/3,k/30,36

19/3,K/30 (Item 20 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
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04211388 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Long-term persistence of song dialects in the Mountain White-Crowned Sparrow

Harbison, Heidi; Nelson, Douglas A; Hahn, Thomas P  
Condor (ICDR), v101 n1, p133-148, p.16  
Feb 1999

ISSN: 0010-5422 JOURNAL CODE: ICDR

DOCUMENT TYPE: Feature  
LANGUAGE: English  
WORD COUNT: 7168

RECORD TYPE: Fulltext; Abstract

TEXT:

... as the standard deviation divided by the mean times 100%. We compared quantitative features of song structure (e.g., whistle frequency and duration) between years within dialects using nonparametric tests (e...).

...after confirming variance homogeneity with Levene's test. Change in the frequency of occurrence of song or phrase types over time was tested with chi-square tests. When expected frequencies were sparse in 2 x 2 tables, Yates' corrected chi-square was used. Inclusion of rare types or elements as separate categories often violated assumptions of the chisquare test. In these cases, rare song types or syllables were either eliminated from the analysis or lumped with another category if doing so appeared logical (e.g., two distinct song types at Carson Pass in 1995-1996 were both absent in 1970, and therefore were lumped as "new" in the analysis). Because some individuals sang two song types, the total number of songs exceeded the number of birds recorded. Similarly, depending upon the quality of the recordings, sample...individual showed little variation in frequency or duration ( $Cv < 0.02$ ). Between years, neither mean frequency nor mean duration of the whistle changed significantly (Table 2).

Two types of broad band buzz (phrase II) occurred at Tioga Pass (a and ...)

...frequency range spanned by the note complex was significantly greater in 1996 than in 1970 (Table 3).

The trill simple syllables (phrase IV) were two short- frequency sweeps similar to those on Tioga Pass. As on Tioga Pass, the individual syllables spanned...

...The prevalence of the two more common syllables (a and d) in our sample of songs changed significantly between years  
(Yates corrected  $\chi^2$ ,  $P < 0...$ )

19/3, K/36 (Item 26 from file: 484)  
DIALOG(R)File 484: Periodical Abs Plustext  
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03737937 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Short-range and long-range songs: Use of two acoustically distinct song classes by Dark-eyed Juncos  
Titus, Russell C  
Auk (IAUK), v115 n2, p386-393, p.8  
Apr 1998  
ISSN: 0004-8038 JOURNAL CODE: IAUK  
DOCUMENT TYPE: Feature  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 4929

TEXT:

... unless indicated otherwise. All values are presented as 1 SE.

RESULTS

Structure of the two song classes.-Long-range songs typically were composed of a single syllable repeated in a trill (Fig. 1). Each LRS type was repeated an average of  $24.9 \pm 5.6$  times before a new song type was produced ( $n = 10$  males). Frequency, syntax, and temporal measures of LRS are presented in Table 1. Shortrange songs were more variable in syntax than were LRS (Fig. 1), and their frequency range was wider (Table 1). Syllables seldom were repeated until much later in the song bout (Table 1). Syllable repertoire sizes for both song classes are presented in Table 2. All four males included typical junco calls (see Balph...?)

File 6:NTIS 1964-2005/Sep w1  
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     (c) 2005 Inst for Sci Info  
 File 35:Dissertation Abs Online 1861-2005/Aug  
     (c) 2005 ProQuest Info&Learning  
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 File 95:TEME-Technology & Management 1989-2005/Aug w1  
     (c) 2005 FIZ TECHNIK  
 File 99:Wilson Appl. Sci & Tech Abs 1983-2005/Jul  
     (c) 2005 The HW Wilson Co.  
 File 144:Pascal 1973-2005/Sep w1  
     (c) 2005 INIST/CNRS  
 File 256:TecInfoSource 82-2005/Sep  
     (c) 2005 Info.Sources Inc  
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
     (c) 1998 Inst for Sci Info  
 File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
     (c) 2002 The Gale Group  
 File 56:Computer and Information Systems Abstracts 1966-2005/Aug  
     (c) 2005 CSA.  
 File 57:Electronics & Communications Abstracts 1966-2005/Aug  
     (c) 2005 CSA.  
 File 60:ANTE: Abstracts in New Tech & Engineer 1966-2005/Aug  
     (c) 2005 CSA.

Set	Items	Description
S1	1357629	AUDIO? ? OR VOICE? ? OR SOUND? ? OR ACOUSTIC?? ? OR MUSIC?? ? OR PHONIC? ? OR AURAL? OR AURIC? OR AUDIBLE OR SONIC?
S2	1628	S1(2N)(FINGERPRINT? OR FINGER()PRINT? OR PRINT OR PRINTS OR PRINTED OR PRINTING?)
S3	87589	S1(2W)(SIGNAL? ? OR PULSE? ? OR DATASIGNAL? OR VALUE? ? OR READING? ?)
S4	348	AUDIOSIGNAL? OR VOICESIGNAL?
S5	56093	TUNE OR TUNES OR SONG OR SONGS
S6	212	VOICEPRINT? OR AUDIOPRINT? OR TUNEPRINT? OR SONGPRINT?
S7	2963242	FREQUENC?
S8	3036227	MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR SCHEMA? ? OR ROW? ? OR COLUMN?
S9	560916	ORTHOGON? OR DIAGON? OR PERPENDIC? OR RIGHT()ANGLE? ?
S10	24031	S1:S6(5N)(RETRIEV? OR FETCH? OR LOCAT? OR FIND? OR RECOVER? OR RECALL? OR REACCESS? OR GET? ? OR GETTING OR IR OR GRAB?)
S11	28969	S1:S6(5N)(MATCH? OR COMPARAT? OR COMPARISON? OR COMPAR??? - ?)
S12	17080	S1:S6(5N)(ACCESS??? ? OR EXTRACT? OR EXT?? ? OR QUERY? OR - QUERIE? ? OR SEARCH?)
S13	5916	S1:S6(5N)(DATAMIN? OR MIN??? ? OR REQUEST?)
S14	35294	S7(10N)S8
S15	378	S2:S6 AND S14
S16	19	S15 AND S9
S17	26	S15 AND S10:S13
S18	43388	S1:S6(5N)(RECOGNI? OR ID OR IDS OR IDENTIF? OR VERIF? OR AUTHENTICAT? OR VALID? OR CONFIRM?)
S19	21	S15 AND S18
S20	60	S16:S17 OR S19
S21	12	S20/2004:2005
S22	48	S20 NOT S21

S23 39 RD (unique items)

23/7/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
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08000483 INSPEC Abstract Number: A2001-18-8770-001, B2001-09-6140-030,  
C2001-09-1260S-044

Title: New matrix decomposition based on transforming the basis sets of  
the singular value decomposition yields principal features for  
time-frequency distributions

Author(s): Groutage, D.; Bennink, D.  
Author Affiliation: Naval Surface Warfare Center, Bremerton, WA, USA  
Journal: Proceedings of the SPIE - The International Society for Optical  
Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA)  
vol.4116 p.66-79  
Publisher: SPIE-Int. Soc. Opt. Eng,  
Publication Date: 2000 Country of Publication: USA  
CODEN: PSISDG ISSN: 0277-786X  
SICI: 0277-786X(2000)4116L.66:MDBT;1-2  
Material Identity Number: C574-2001-023  
U.S. Copyright Clearance Center Code: 0277-786X/2000/\$15.00  
Conference Title: Advanced Signal Processing Algorithms, Architectures,  
and Implementations X  
Conference Sponsor: SPIE  
Conference Date: 2-4 Aug. 2000 Conference Location: San Diego, CA, USA  
Language: English Document Type: Conference Paper (PA); Journal Paper  
(JP)

Treatment: Theoretical (T)  
Abstract: We present a matrix decomposition that can be used to derive  
features from processes that are described by discrete-time, time-frequency  
representations. These include, among others, electrocardiograms, brain  
wave signals, seismic signals, vibration and shock signals, speech signals  
for voice recognition, and acoustic transient signals . The new  
decomposition is based on a transformation of the basis vectors of the  
singular value decomposition (SVD) which we call transformed singular value  
decomposition or TSVD. The transformed basis vectors are obtained by  
forming linear combinations of the original SVD basis vectors in a way such  
that the means of the transformed vectors are extrema of each other. The  
TSVD basis vectors are used to identify concentrations of energy density in  
the discrete-time, time-frequency representation by time and frequency  
descriptors. That is, descriptors such as the location in time, the spread  
in time, the location in frequency and the spread in frequency for each  
principal concentration of energy density can be obtained from the TSVD  
terms in the matrix decomposition series. Several examples are presented  
which illustrate the application of the new matrix decomposition for  
deriving principal time and frequency features from the discrete-time,  
time-frequency representations of nonstationary processes. Two of the  
examples illustrate how the derived time and frequency features can be used  
to classify individual short duration transient signals into respective  
classes, that is: (1) automatically classify sonar signals as belonging to  
one of ten classes, and (2) automatically classify heartbeat signals as  
belonging to one of two people. (14 Refs)

Subfile: A B C  
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23/7/10 (Item 10 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2005 Institution of Electrical Engineers. All rts. reserv.

05746511 INSPEC Abstract Number: A9419-4360-002  
Title: Design of an acoustical imaging operator based on the singular  
value decomposition method  
Author(s): Murata, Y.; Minagawa, K.; Tamura, Y.; Koyama, K.

Author Affiliation: Fac. of Eng., Yamagata Univ., Yonezawa, Japan  
Journal: Japanese Journal of Applied Physics, Part 1 (Regular Papers & Short Notes) vol.33, no.5B p.3176-80  
Publication Date: May 1994 Country of Publication: Japan  
CODEN: JAPNDE ISSN: 0021-4922  
Conference Title: 14th Symposium on Ultrasonic Electronics (USE 93)  
Conference Date: 7-9 Dec. 1993 Conference Location: Yokohama, Japan  
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Theoretical (T)  
Abstract: A new imaging operator has been developed for acoustical imaging using a 2 channel sequence encoding array transducer. The new imaging operator has the ability to correct the poor orthogonal property of a transfer matrix. Moreover, images with many image points have been reconstructed by the new imaging operator. The new imaging operator has been composed on the basis of the singular-value decomposition (SVD) of the transfer matrix in the frequency domain. Characteristics of the new imaging operator are discussed by simulating the two-dimensional point spread functions (2-D PSFs). An image with a high dynamic range was obtained for a single object on the sampling image points by the method. Moreover, the method was able to reconstruct the image of the existing object outside the sampling image points. (7 Refs)

Subfile: A

23/7/16 (Item 3 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
(c) 2005 Elsevier Eng. Info. Inc. All rts. reserv.

05058833 E.I. No: EIP98074274518  
Title: Vehicle sound signature recognition by frequency vector principal component analysis  
Author: Wu, Huadong; Siegel, Mel; Khosla, Pradeep  
Corporate Source: Carnegie Mellon Univ, Pittsburgh, PA, USA  
Conference Title: Proceedings of the 1998 IEEE Instrumentation and Measurement Technology Conference, IMTC. Part 1 (of 2)  
Conference Location: St.Paul, MN, USA Conference Date: 19980518-19980521  
Sponsor: IEEE  
E.I. Conference No.: 48637  
Source: Conference Record - IEEE Instrumentation and Measurement Technology Conference v 1 1998. IEEE, Piscataway, NJ, USA, 98CH36222. p 429-434  
Publication Year: 1998  
CODEN: CRIIE7  
Language: English  
Document Type: CA; (Conference Article) Treatment: T; (Theoretical)  
Journal Announcement: 9809w1  
Abstract: A simple and reliable acoustic identification method, the eigenfaces method, is presented for modeling the sound-frequency distribution features of a working vehicle. The frequency spectra of about 200 ms of sound is treated as a vector in a high-dimensional frequency feature space. The vector distribution for each kind of vehicle sound produced under similar working conditions is examined. A collection of typical sound samples is used as the training data set. The mean frequency vector of the training set is calculated and subtracted from each vector in the set. To capture the frequency vectors' variation within the training set, the eigenvectors of the covariance matrix of the zero-mean-adjusted sample data set are calculated. 5 Refs.  
? t23/7/27, 35-36

23/7/27 (Item 2 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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04598539 JICST ACCESSION NUMBER: 00A0535133 FILE SEGMENT: JICST-E  
Application of Independent Component Analysis to Signal Processing of  
Speech and Acoustic Signal.

KOTANI MANABU (1); AKAZAWA KENZO (1); OZAWA SEIICHI (2); MAEKAWA SATOSHI  
(3)

(1) Kobe Univ., Fac. of Eng.; (2) Kobe Univ.; (3) Commun. Rese. Lab.  
Chino Shisutemu Shinpojumu Shiryo, 2000, VOL.27th, PAGE.167-172, FIG.9,  
TBL.1, REF.7

JOURNAL NUMBER: X0905ACR

UNIVERSAL DECIMAL CLASSIFICATION: 621.391.3

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: We describe what characteristics an independent component analysis can extract from Japanese continuous speech and leakage sound. The learning algorithm of a network was an information-maximization approach proposed by Bell and Sejnowski. Speech data was selected from ATR database uttered by a female speaker. After the learning, most of the basis functions that are columns of a mixing matrix were localized in frequency. Furthermore, there were some basis functions to extract the acoustic feature such as the pitch and the formant of each vowel. On the other hand, we applied the independent component analysis to the leakage sound. We also obtained the basis function to extract the feature of leakage sound. From these results, we confirmed that the application of independent component analysis to the signal processing of the speech and the acoustic signal was effective. (author abst.)

23/7/35 (Item 7 from file: 144)

DIALOG(R)File 144:Pascal

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11749427 PASCAL No.: 94-0620088  
Design of a acoustical imagin operator based on the singular value  
decomposition method  
ultrasonic electronics  
MURATA Y; MINIGAWA K; TAMURA Y; KOYAMA K  
UEHA Sadayuki, ed; YAMAGUCHI Masatsune, ed; TAKAGI Kenshiro, ed; MITAKU  
Shigeki, ed  
Yamagata univ., fac. eng., Jonan 4-3-16, Yonezawa 992, Japan  
Japan Society of Applied Physics, Tokyo, Japan.  
USE 93. Symposium (Yokohama JPN) 1993-12-07  
Journal: Japanese journal of applied physics, 1994, 33 (5B p.1)

3176-3180

ISSN: 0021-4922 CODEN: JJAPAS Availability: INIST-9959;  
354000046318430740  
No. of Refs.: 7 ref.  
Document Type: P (Serial); C (Conference Proceedings) ; A (Analytic)  
Country of Publication: Japan  
Language: English  
A new imaging operator has been developed for acoustical imaging using a 2ch m-sequence encoding array transducer. The new imaging operator has the ability to correct the poor orthogonal property of a transfer matrix. Moreover, images with many image points have been reconstructed by the new imaging operator. The new imaging operator has been composed on the basis of the singular-value decomposition (SVD) of the transfer matrix in the frequency domain. Characteristics of the new imaging operator are discussed by simulating the two-dimensional point spread functions (2-D PSFs). An image with a high dynamic range was obtained for a single object on the sampling image points by the method

23/7/36 (Item 8 from file: 144)

DIALOG(R)File 144:Pascal  
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11484281 PASCAL No.: 94-0322276  
Musical signal spectrum analysis with the matrix pencil method  
LAROCHE Jean  
Dept. Signal C134-4, Telecom Paris, 46 Rue Barrault, 75634 Paris Cedex  
13, France  
The 127th Meeting of the Acoustical Society of America (Cambridge,  
Massachusetts (USA)) 1994-06-06/1994-06-10  
Journal: Journal of the Acoustical Society of America, 1994-05, 95 (5)  
2936-2936

ISSN: 0001-4966 CODEN: JASMAN Availability: INIST-129  
Document Type: P (Serial); C (Conference Proceedings); E (Summary) ; A (Analytic)

Country of Publication: USA

Language: English

The matrix pencil spectrum analysis method provides an interesting alternative to classical Fourier analysis. The method is based on the assumption that the signal can be represented as a sum of exponentially damped sinusoids whose parameters (frequency, damping factor, amplitude and phase) are estimated by a matrix-based algorithm. In spite of its computational cost, the matrix pencil method achieves extremely good results in the case of highly damped signals, short data records, or close frequencies. The matrix pencil method is first briefly described and compared to other spectrum analysis techniques (Fourier transform, Prony method). Several implementations are proposed and their computational costs evaluated. The good performance of the method is illustrated by analysis examples involving low-frequency beats of piano tones. These beats are decomposed as sums of closely spaced damped sinusoids, which makes it possible to verify some of results on the coupling between orthogonal vibrating modes of strings (G. Weinreich, "Coupled piano strings," J. Acoust. Soc. Am. 62, 1474 (1977)). The matrix pencil method is also applied to the analysis of the bridge admittance of a guitar and is used to model the admittance as a set of simple mechanical systems in parallel.

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31/3,K/45 (Item 31 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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04195220 Supplier Number: 46133045 (USE FORMAT 7 FOR FULLTEXT)  
SESAC EXPANDS ELECTRONIC MUSIC MONITORING SYSTEM; BDS Technology To Track  
Top 40, AOR, AC, Country, Modern Rock, R&B & AA Genres.  
Business Wire, p02081240

Feb 8, 1996

Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 407

... is leading the technology wave."

BDS can precisely and instantaneously determine what songs are being played by particular stations locally and nationally on a 24-hour basis. Its technology is based on a nationwide network of computers that monitors broadcast stations and cable outlets in the top 100 markets across

...

...of thousands of digital electronic song "fingerprint" patterns in memory. When the computer recognizes a song being aired that matches one in memory, it notes the outlet playing it, as well as the day and time. Data is then transmitted to BDS' central...

34/3,K/29 (Item 21 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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07394439 Supplier Number: 62202347 (USE FORMAT 7 FOR FULLTEXT)  
MP3.com, BMI reach pact, Napster loses a round. (Company Business and  
Marketing)  
Deveaux, Sarah  
Network World, pNA  
May 15, 2000  
Language: English Record Type: Fulltext  
Document Type: Tabloid; Trade  
Word Count: 742

... of the RIAA lawsuit against MP3.com. MP3.com software, accessible  
on the company's Web site, matches music CDs that users insert into  
their PCs with CDs stored in MP3.com's own...

...may log into their myMP3.com account from any PC to listen to the CDs,  
played in streaming format. Among other issues, RIAA is concerned that the  
method of verification offered...

20000515

34/3,K/32 (Item 24 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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07103054 Supplier Number: 60057383 (USE FORMAT 7 FOR FULLTEXT)  
MongoMusic.com and Kerbango Team Up to Personalize Internet Radio for  
Consumers.  
Business Wire, p1424  
March 13, 2000  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 809

... listening to Internet audio easier and more reliable.  
About IMSS and RadioMongo  
RadioMongo is a web-based music player with song lists geared to  
the musical tastes of the listeners. Users...

...Using MongoMusic's Intuitive Music Search System (IMSS), RadioMongo  
streams up to three hours of music that matches the musical qualities  
of that song. MongoMusic has developed RadioMongo as an interface to the  
IMSS, which will help music fans find music they will ultimately want to  
purchase. RadioMongo can be found at www.mongomusic.com.

About MongoMusic, Inc.  
Headquartered in Menlo Park, CA, MongoMusic, Inc., is a privately...  
20000313

25/3,K/2 (Item 2 from file: 9)  
DIALOG(R)File 9:Business & Industry(R)  
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2944217 Supplier Number: 02944217

Patents: Inventions to cull more music from the Internet and indulge in better karaoke, too.

(Three inventors patent SongCatcher, product that allows recorded music to be downloaded from radio broadcasts onto computer hard drive; Japanese inventor patents Web-based music search engine)

New York Times , v CL, n 51,543, p C18

October 16, 2000

DOCUMENT TYPE: National Newspaper ISSN: 0362-4331 (United States)

LANGUAGE: English RECORD TYPE: Abstract

ABSTRACT:

...and saved by pressing a button.

A Japanese inventor has received a patent for a Web -based music search engine that compares a melody to music sequences in a database until the melody is identified. The user sings , whistles or hums the melody into a microphone and the tune is converted into a digital signal. The...

29/7/5 (Item 5 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2005 Institution of Electrical Engineers. All rts. reserv.

5903213 INSPEC Abstract Number: C9806-7820-006  
**Title:** The New Zealand Digital Library MELOdy inDEX  
**Author(s):** McNab, R.J.; Smith, L.A.; Bainbridge, D.; Witten, I.H.  
**Author Affiliation:** Dept. of Comput. Sci., Waikato Univ., Hamilton, New Zealand

**URL:** <http://www.dlib.org/dlib/may97/meldex/05witten.html>  
**Journal:** D-Lib Magazine  
**Publication URL:** <http://mirrored.ukoln.ac.uk/lis-journals/dlib/>  
**Publisher:** Corporation for National Research Initiatives,  
**Publication Date:** May 1997 **Country of Publication:** USA  
**ISSN:** 1082-9873

**Material Identity Number:** G467-98005  
**Language:** English **Document Type:** Journal Paper (JP)

**Treatment:** Practical (P)

**Abstract:** Trying to identify a melody from just a few bars? Some tune buzzing round your head, bugging you? If you ever want to discover a song's name but can only remember a few notes, the New Zealand Digital Library's Web -based MELDEX (MELOdy inDEX) system is the service for you! You can sing (or hum , or play ) a few notes and search for the tune in a database of 9,400 folk songs. You get back the notes you sang in musical notation, along with a ranked list of matching tunes . You can listen to the melodies, view them in musical notation, and download them in a variety of popular formats. This paper describes MELDEX, which is designed to retrieve melodies from a database on the basis of a few notes sung into a microphone. It accepts acoustic input from the user , transcribes it into ordinary music notation, then searches a database for tunes that contain the sung pattern, or patterns similar to it. Retrieval is ranked according to the closeness of the match. A variety of different mechanisms are provided to control the search, depending on the precision of the input . This article presents an analysis of the system's performance using different search criteria involving melodic contour, musical intervals and rhythm. Tests were carried out using both exact and approximate string matching. Approximate matching uses a dynamic programming algorithm designed for comparing musical sequences. (8

Refs)

Subfile: C

Copyright 1998, IEE

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)

(c) 2005 JPO & JAPIO

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200558

(c) 2005 Thomson Derwent

File 371:French Patents 1961-2002/BOPI 200209

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Set	Items	Description
S1	575599	AUDIO? ? OR VOICE? ? OR SOUND? ? OR ACOUSTIC?? ? OR MUSIC?? ? OR PHONIC? ? OR AURAL? OR AURIC? OR AUDIBLE OR SONIC?
S2	1524	S1(2N)(FINGERPRINT? OR FINGER()PRINT? OR PRINT OR PRINTS OR PRINTED OR PRINTING?)
S3	105049	S1(2w)(SIGNAL? ? OR PULSE? ? OR DATASIGNAL? OR VALUE? ? OR READING? ?)
S4	5	AUDIOSIGNAL? OR VOICESIGNAL?
S5	33630	TUNE OR TUNES OR SONG OR SONGS
S6	227	VOICEPRINT? OR AUDIOPRINT? OR TUNEPRINT? OR SONGPRINT?
S7	852647	FREQUENC?
S8	999995	MATRICE? ? OR MATRIX?? ? OR TABLE? ? OR TABULAR? OR SCHEMA? ? OR ROW? ? OR COLUMN?
S9	551994	ORTHOGON? OR DIAGON? OR PERPENDIC? OR RIGHT()ANGLE? ?
S10	10944	S1:S6(5N)(RETRIEV? OR FETCH? OR LOCAT? OR FIND? OR RECOVER? OR RECALL? OR REACCESS? OR GET? ? OR GETTING OR IR OR GRAB?)
S11	11657	S1:S6(5N)(MATCH? OR COMPARAT? OR COMPARISON? OR COMPAR??? - ?)
S12	14036	S1:S6(5N)(ACCESS??? ? OR EXTRACT? OR EXT?? ? OR QUERY? OR - QUERIE? ? OR SEARCH?)
S13	5359	S1:S6(5N)(DATAMIN? OR MIN??? ? OR REQUEST?)
S14	7607	S7(10N)S8
S15	315	S2:S6 AND S14
S16	8	S15 AND S9
S17	30	S15 AND S10:S13
S18	37	S16:S17
S19	37	IDPAT (sorted in duplicate/non-duplicate order)
S20	34	IDPAT (primary/non-duplicate records only)
S21	5	S20 AND AC=US/PR
S22	3	S21 AND AY=(1970:2001)/PR
S23	18	S20 AND PY=1970:2001
S24	19	S22:S23
S25	78568	IC='G06F-017/30':IC='G06F-017/39'
S26	0	S15 AND S25
S27	27202	(S1 OR S4 OR S5)(5N)(RECOGNI? OR ID OR IDS OR IDENTIF? OR - VERIF? OR AUTHENTICAT? OR VALID? OR CONFIRM?)
S28	14	S15 AND S27
S29	3633	(S2:S3 OR S6)(5N)(RECOGNI? OR ID OR IDS OR IDENTIF? OR VER- IF? OR AUTHENTICAT? OR VALID? OR CONFIRM?)
S30	7	S15 AND S29
S31	11	(S28 OR S30) NOT S18
S32	11	IDPAT (sorted in duplicate/non-duplicate order)
S33	10	IDPAT (primary/non-duplicate records only)
S34	5	S21 AND AY=(1970:2003)/PR
S35	28	S20 AND PY=1970:2003
S36	11	S34:S35 NOT (S24 OR S31)

24/9/8 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014051803 \*\*Image available\*\*  
WPI Acc No: 2001-536016/ 200159

XRPX Acc No: N01-398114

Voice encoding and decoding method

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU ); MATSUSHITA DENKI SANGYO KK (MATU )

Inventor: YONEZAKI T

Number of Countries: 095 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200124164	A1	20010405	WO 2000JP6542	A	20000925	200159	B
AU 200073212	A	20010430	AU 200073212	A	20000925	200159	
JP 2001100798	A	20010413	JP 99275119	A	19990928	200159	
EP 1132891	A1	20010912	EP 2000961220	A	20000925	200161	
			WO 2000JP6542	A	20000925		
JP 3360046	B2	20021224	JP 99275119	A	19990928	200304	

Priority Applications (No Type Date): JP 99275119 A 19990928

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200124164 A1 J 31 G10L-019/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200073212 A G10L-019/00 Based on patent WO 200124164

JP 2001100798 A 11 G10L-019/12

EP 1132891 A1 E G10L-019/00 Based on patent WO 200124164

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SI

JP 3360046 B2 11 G10L-019/12 Previous Publ. patent JP 2001100798

Abstract (Basic): WO 200124164 A1

NOVELTY - A voice analyzer (101) in a voice encoder (100) extracts the fundamental frequency and spectral envelope information from an input voice signal. A fundamental frequency quantizer (102) quantizes the fundamental frequency. A matrix generator (103) derives a spectral envelope from the spectral envelope information, and a spectral envelope quantizer (104) quantizes the spectral envelope. A multiplexer (105) multiplexes the quantized spectrum envelope and the quantized fundamental frequency for transmission. In a voice decoder (200), a spectral envelope composer (202) restores the quantized spectral envelope from the spectral envelope information, and a voice synthesizer (203) extracts the spectral envelope based on the fundamental frequency information to synthesize the decoded voice. Thus, high-quality voice decoding can be achieved in the case of transmission at a low bit rate.

USE - Voice encoding and decoding method

DESCRIPTION OF DRAWING(S) - Voice analyzer (101)

Voice encoder (100)

Fundamental frequency quantizer (102)

Spectral envelope quantizer (104)

Multiplexer (105)

Voice decoder (200)

Spectral envelope composer (202)

Voice synthesizer (203)

pp; 31 DwgNo 1/12

Title Terms: VOICE; ENCODE; DECODE; METHOD

Derwent Class: P86; W04

International Patent Class (Main): G10L-019/00; G10L-019/12  
International Patent Class (Additional): G10L-011/00; G10L-101-06;  
H04B-014/04  
File Segment: EPI; EngPI  
Manual Codes (EPI/S-X): w04-v05G  
?

33/9/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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016276383 \*\*Image available\*\*  
WPI Acc No: 2004-434278/200441  
XRXPX Acc No: N04-343213

Blind signal separation method for speech recognition, involves determining permutation at each reception frequency of observation signal, based on isolation matrix of signal, so that similarity of signal at each frequency is raised  
Patent Assignee: NIPPON TELEGRAPH & TELEPHONE CORP (NITE )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2004145172	A	20040520	JP 2002312204	A	20021028	200441 B

Priority Applications (No Type Date): JP 2002312204 A 20021028

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2004145172	A	13		G10L-015/20	

Abstract (Basic): JP 2004145172 A

NOVELTY - An isolation matrix is calculated for each reception frequency of an incoming observation signal, after short-time Fourier transformation of the signal. The permutation is determined at each reception frequency of the observation signal, based on the matrix , so that the similarity of signal at each reception frequency is raised, in order to assess whether the signal incoming direction is correct or not.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a blind signal separation apparatus;
- (2) a blind-signal separation program; and
- (3) a recorded medium storing blind-signal separation program.

USE - For separating blind signal from sound signal during speech- recognition .

ADVANTAGE - Enables solving the permutation at stably high precision.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating blind signal separation method. (Drawing includes non-English language text).

pp; 13 DwgNo 3/10

Title Terms: BLIND; SIGNAL; SEPARATE; METHOD; SPEECH; RECOGNISE; DETERMINE; PERMUTATION; RECEPTION; FREQUENCY; OBSERVE; SIGNAL; BASED; ISOLATE; MATRIX; SIGNAL; SO; SIMILAR; SIGNAL; FREQUENCY; RAISE

Derwent Class: P86; T01; W04; W06

International Patent Class (Main): G10L-015/20

International Patent Class (Additional): G01S-003/802; G10L-015/28; G10L-021/02

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): T01-J18; T01-S03; W04-G03; W04-V01; W04-V04A; W04-V05E; W06-A02E

33/9/5 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012741096 \*\*Image available\*\*  
WPI Acc No: 1999-547213/199946  
XRXPX Acc No: N99-406373

Channel selector for audio recognition - uses tuner to select predetermined frequency corresponding recognized language common to

several broadcasting-station names, with reference to frequency table when frequency in preset memory cannot be received  
Patent Assignee: CLARION CO LTD (CLAQ )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applcat No Kind Date week  
JP 11239067 A 19990831 JP 9841529 A 19980224 199946 B

Priority Applications (No Type Date): JP 9841529 A 19980224

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11239067	A	12	H04B-001/16		

Abstract (Basic): JP 11239067 A

NOVELTY - An audio recognition device (106) determines a predetermined language common to several broadcasting-station names. A table (6) records various frequencies corresponding to the common language. A tuner (5) selects a frequency corresponding to the recognized common language, with reference to the data contents of the table when the frequency in a preset memory (9) cannot be received.  
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:a channel selection method for audio recognition ; and a recording medium which stores a program for channel selection.

USE - For audio recognition . Applicable to a car audio system.

ADVANTAGE - Selection of corresponding frequency can be simplified only by uttering a lexicon common to a broadcasting-station name. Improves running safety of driver when being applied to car audio system. DESCRIPTION OF DRAWING(S) - The figure shows the component block diagram for channel selection. (5) Tuner; (6) Table; (9) Preset memory; (106) Audio recognition device.

Dwg.2/8

Title Terms: CHANNEL; SELECT; AUDIO; RECOGNISE; TUNE ; SELECT; PREDETERMINED; FREQUENCY; CORRESPOND; LANGUAGE; COMMON; BROADCAST; STATION; NAME; REFERENCE; FREQUENCY; TABLE; FREQUENCY; PRESET; MEMORY; RECEIVE

Derwent Class: P86; U25; W02; W04

International Patent Class (Main): H04B-001/16

International Patent Class (Additional): G10L-003/00; H03J-005/02

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): U25-H; W02-G03; W04-V

33/9/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
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007558079 \*\*Image available\*\*

WPI Acc No: 1988-192011/198828

XRPX Acc No: N88-146832

Data bit pseudo-frequency ratio detection circuit - detects presence of predetermined pseudo-frequency ratio in pattern of data bits and is esp. for voice or image recognition

Patent Assignee: NIKKEN FOODS HONSHA (NIKK-N); STREHLER B (STRE-I)

Inventor: STREHLER B

Number of Countries: 005 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applcat No	Kind	Date	week
EP 274427	A	19880713	EP 88300075	A	19880106	198828 B
US 4891602	A	19900102	US 871161	A	19870107	199009

Priority Applications (No Type Date): US 871161 A 19870107

Cited Patents: 1.Jnl.Ref; A3...9109; GB 1218828; No-SR.Pub; US 3588363

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes

EP 274427 A E 7  
Designated States (Regional): DE FR GB IT  
US 4891602 A 6

Abstract (Basic): EP 274427 A

An arrangement of raw feature sensors (110), for voice input signals, has each row feature sensor assigned to a particular frequency. Each sensor has a band pass filter (112) with a given mean pass frequency and a pass frequency range overlap of about five to ten percent of the total pass frequency range of each sensor.

The pass frequencies are arranged in sequence with the lowest pass frequency equal to a given base value and each successive pass frequency equal to a given multiple of the next preceding pass frequency. When ratios of pseudo-frequencies are detected the ratios of features with integer powers of the multiple will be detected. The output signal lines (114) are collected on a sensor bus (116) and processed by a ratio-detector network.

ADVANTAGE - Is able to recognise visual and voice signals, more precisely.

Abstract (Equivalent): US 4891602 A

Raw feature sensors are arranged in rank order for sensing raw features which exceed a respective set of raw feature values. Each raw feature sensor determines if a feature exists which falls within its range. The raw feature sensors have ranges which are exponentially spaced by a constant factor, which may be chosen to allow easy approximate calculation of small integer ratios or other important ratios. A contrast-enhancer may be used in the case of visual data to improve the operation of the raw feature sensors.

A ratio-detector network is responsive to the raw feature sensors and calculates ratios of the raw feature data. The ratio-detector network pairwise ANDs each possible pair of results from the raw feature sensors and combines these pairwise 0/1D results with OR gates to generate a set of outputs, each of which indicates the detection of a single ratio.

USE - Visual/ voice input recognition sensor.

Title Terms: DATA; BIT; PSEUDO; FREQUENCY; RATIO; DETECT; CIRCUIT; DETECT; PRESENCE; PREDETERMINED; PSEUDO; FREQUENCY; RATIO; PATTERN; DATA; BIT; VOICE; IMAGE; RECOGNISE

Derwent Class: P86; T04; W04

International Patent Class (Additional): G06K-009/36; G10L-007/08;  
H03K-005/00

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): T04-D03; w04-v01

33/9/10 (Item 10 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06623529 \*\*Image available\*\*  
AUDIBLE SOUND MEASURING DEVICE

PUB. NO.: 2000-209340 [JP 2000209340 A]  
PUBLISHED: July 28, 2000 (20000728)  
INVENTOR(s): SAWADA SEIICHI  
UENO MASARU  
YAMASHITA HIROSHI  
APPLICANT(s): ANRITSU CORP  
NIPPON TELEGR & TELEPH CORP (NTT)  
APPL. NO.: 11-011655 [JP 9911655]  
FILED: January 20, 1999 (19990120)  
INTL CLASS: H04M-003/26; H04M-019/02

ABSTRACT

PROBLEM TO BE SOLVED: To surely discriminate and recognize not only the domestic audible sound signals but the foreign ones.

SOLUTION: An audible sound table 12 stores one or plural frequencies included in a relevant audible sound signal , a time pattern including the presence or absence of a signal and the duration of the signal and other plural audible sound signals which may possibly be received in place of the relevant signal in every pattern number that specifies every audible sound signal . Then a specific pattern including the audible sound signals which are equal to the audible sound signals received from the public telephone networks 2 and 7 is decided among those patterns which are stored in the table 12, and it's recognized whether the audible sound signal of the pattern that is designated to every telephone operation is equal to the audible sound signal that is decided at a reception deciding part 11. If these two audible signals are not equal to each other, it's decided whether the audible sound signal decided at the part 11 is equal to another audible sound signal that may possibly be received in place of the audible sound signal of the designated pattern which is stored in the table 12.

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36/9/3 (Item 3 from file: 347)  
DIALOG(R)File 347:JAPIO  
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07256625 \*\*Image available\*\*  
EQUIPMENT MANAGING DEVICE

PUB. NO.: 2002-125084 [JP 2002125084 A]  
PUBLISHED: April 26, 2002 ( 20020426)  
INVENTOR(s): OGASAWARA NORIHIKO  
APPLICANT(s): RICOH CO LTD  
APPL. NO.: 2000-315552 [JP 2000315552]  
FILED: October 16, 2000 (20001016)  
INTL CLASS: H04N-001/00; B41J-029/38; B41J-029/46; G03G-021/00;  
G06F-003/12; G06F-003/16; G06F-011/22; G10L-015/10;  
G10L-015/00

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide an equipment managing device capable of recognizing the state of equipment which is not provided with any means for communicating equipment management information, and notifying a host computer of the result.

SOLUTION: A voice signal (error state notification information) from a buzzer 12 of a printing device 10 obtained by a microphone 1 is collated with a pattern stored in the data table of data 4 for information conversion. In this case, frequency distribution and pronunciation patterns to be detected are preserved in the data 4 for information conversion, and equipment management information corresponding to the various frequency distribution and pronunciation patterns is stored in the data table in the data 4 for information conversion. An information converting part 3 judges whether or not the received voice signal is matched with the patterns stored in the data 4 for information conversion in a specified error range, judge that any error state is generated by referring to the pertinent equipment management information in the data table when they are matched, and notifies a host computer 20 of the result through a communicating part 5.

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36/9/5 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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017005722 \*\*Image available\*\*

WPI Acc No: 2005-330039/200534  
Related WPI Acc No: 2005-180575  
XRPX Acc No: N05-269795

Audio fingerprinting method for identification of audio file, involves retrieving information related to specific audio file on receiving request containing rows of matrix constructed based on frequency measurements of audio file  
Patent Assignee: HICKEN W T (HICK-I); HOLM F (HOLM-I); PARASOFT CORP (PARA-N)

Inventor: HICKEN W T; HOLM F

Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050065976	A1	20050324	US 2003668926	A	20030923	200534 B
WO 200531517	A2	20050407	WO 2004US31138	A	20040923	200534

Priority Applications (No Type Date): US 2003668926 A 20030923

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20050065976 A1 16 G06F-017/00  
WO 200531517 A2 E G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ  
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ  
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR  
GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL  
SZ TR TZ UG ZM ZW

Abstract (Basic): US 20050065976 A1

NOVELTY - A matrix is constructed based on frequency measurements of received audio file. The rows of matrix are retrieved by performing singular value decomposition on the matrix, and stored in a data store, in association with audio file. When a request containing retrieved rows of matrix, is received from an application program, the information related to corresponding audio file is identified and retrieved from a database.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) audio indexing method;
- (2) method for generating identifier for audio class;
- (3) audio fingerprinting system;
- (4) audio indexing system; and
- (5) system for generating identifier for audio class.

USE - For automatic identification of unknown audio file of MP3 format.

ADVANTAGE - The unknown audio file is identified efficiently and reliably at high speed.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic block diagram of the audio fingerprinting system.

audio fingerprinting system (10)

pp; 16 DwgNo 1/7

Title Terms: AUDIO; FINGERPRINT; METHOD; IDENTIFY; AUDIO; FILE; RETRIEVAL; INFORMATION; RELATED; SPECIFIC; AUDIO; FILE; RECEIVE; REQUEST; CONTAIN; ROW; MATRIX; CONSTRUCTION; BASED; FREQUENCY; MEASURE; AUDIO; FILE

Derwent Class: T01; T03

International Patent Class (Main): G06F-000/00; G06F-017/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B3; T03-J01C; T03-N01  
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